

**Tronox LLC**

**DuPage County, Illinois**

## **Final Completion Report – Reaches 1 and 2**

Kress Creek/West Branch DuPage River Site and  
the River Portion of the Sewage Treatment Plant  
Site

August 2008

### **Final Completion Report – Reaches 1 and 2 Errata Sheet**

The following changes have been made to the Reaches 1 and 2 Final Completion Report (dated August 2008) for the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site following the August 7, 2008 submittal. Edited drawings and the revised CD are attached.

1) **Reach 1 - Drawing A-1**

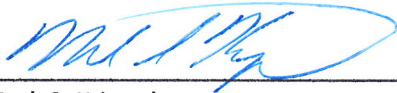
Drawing A-1 has been updated to indicate that the Record Drawing set (e.g., Reach 1 - Drawing B-13) was revised in September 2008.

2) **Reach 1 - Drawing B-13**

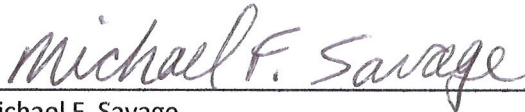
Minor revisions were made to the revision block and title block only of Drawing B-13.

3) **Final Completion Report – Reaches 1 and 2 CD**

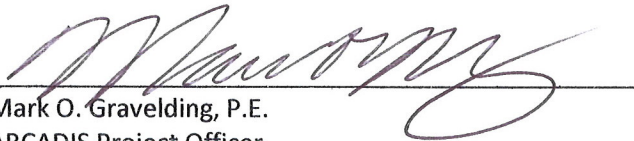
The CD issued with the August 7, 2008 submittal has been revised to include the two revised record drawings.



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**Certification**

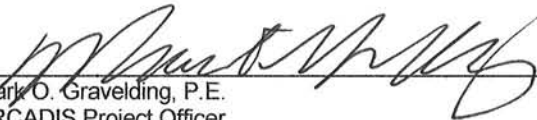
To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



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**Final Completion Report –  
Reaches 1 and 2**

Kress Creek/West Branch  
DuPage River Site and the River  
Portion of the Sewage Treatment  
Plant Site

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## Acronyms and Abbreviations

ACAR	Audit Corrective Action Report
BBL	Blasland, Bouck & Lee, Inc.
BOL	Bill of Lading
C	Coefficient of Conservatism
CAR	Corrective Action Report
CBB West	Christopher B. Burke Engineering West, Ltd.
CD	Federal Consent Decree between Kerr-McGee and the United States of America, State of Illinois
CFR	Code of Federal Regulations
CMRDP	Conceptual Mitigation and Restoration Design Plan
CQAP	Construction Quality Assurance Plan
FD/RA	Final Design/Remedial Action
FQI	Floristic Quality Index
GPS	Global Positioning System
HASP	Health and Safety Plan
IEMA/DNS	Illinois Emergency Management Agency/Division of Nuclear Safety
ICN	Interim Change Notice
NCR	Non-Conformity Report
QAPP	Quality Assurance Project Plan
QA	quality assurance
QA/QC	Quality Assurance/Quality Control
RC <sub>s</sub>	relative coverage
REF	Rare Earths Facility
RF <sub>s</sub>	relative frequency
RIV <sub>n</sub>	relative importance value
RPM/OSC	remedial project manager/on-scene coordinator
SOW	Statement of Work
STP	Sewage Treatment Plant
TMSP	Targeted Material Stabilization Plan
Tronox	Tronox LLC, formerly known and referred to as Kerr-McGee Chemical LLC [Kerr-McGee]
USEPA	United States Environmental Protection Agency

## **1. Introduction**

This Final Completion Report has been prepared by ARCADIS (formerly known as Blasland, Bouck & Lee, Inc), on behalf of Tronox LLC (Tronox; formerly known as Kerr-McGee Chemical LLC [Kerr-McGee]), to summarize the remedial action, restoration, and monitoring of restoration and mitigation areas performed in Reach 1 (which includes removal areas identified as R1-1 through R1-10) and Reach 2 (which includes removal areas identified as R2-1 through R2-5) at the Kress Creek/West Branch DuPage River Site (Kress Creek Site) and the River Portion of the Sewage Treatment Plant Site (STP Site), collectively referred to as the Sites, both located in DuPage County, Illinois. A final summary of the results from the required restoration/mitigation monitoring performed for Reaches 1 and 2 will be submitted under separate cover (as described in Section 8.3).

### **1.1 Background**

Historical operations at the West Chicago Rare Earths Facility (REF), where thorium and other elements were extracted from monazite sands, bastnasite, and other ores between 1932 and 1973, and the STP, which received debris and waste from the REF, resulted in the distribution of low level radioactive thorium residuals in portions of Kress Creek, the West Branch DuPage River, and their associated floodplains.

Extensive site characterization activities were performed to delineate areas at the Sites with radioactivity levels of thorium residuals (BBL, 2004). A site remedy (remedial action) was developed based on the site investigation findings and the baseline human health and ecological risk assessments performed by the United States Environmental Protection Agency (USEPA). The remedial action was designed to be consistent with the requirements set forth in 40 Code of Federal Regulations (CFR) Part 192 in implementing the Uranium Mill Tailings Radiation Control Act and the Illinois Source Material Milling Facility Licensing Regulations under Title 32 of the Illinois Administrative Code Part 332.

The selected remedial activities to be implemented at the Sites are based upon an extraordinarily extensive level of characterization activities and lengthy and detailed dialogue among Tronox, USEPA, and representatives of the Local Communities, including the City of West Chicago, West Chicago Park District, DuPage County, the DuPage County Forest Preserve District, and the City of Warrenville. This characterization defined the limits of excavation of targeted materials to assure protection of human health and the environment.

Specifically, the remedial activities in Reaches 1 and 2 presented in this report were conducted to achieve the performance standards and other requirements as specified in the Federal Consent Decree (CD) and attached Statement of Work (SOW; USEPA, March 30, 2005), and Local Communities Consent Decree (March 23, 2005).

The remedial action activities for Reach 1 were performed in accordance with the *Final Design/Remedial Action Work Plan – Reach 1 for the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site* (FD/RA Work Plan for Reach 1, BBL, 2005a). The remedial action activities for Reach 2 were performed in accordance with the *Final Design/Remedial Action Work Plan – Reach 2 for the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site* (FD/RA Work Plan for Reach 2, BBL, 2005b). In addition, restoration activities for Reaches 1 and 2 were performed in accordance with the *Conceptual Mitigation and Restoration Design Plan* (BBL, 2005c).

## **1.2 Reaches 1 and 2 Descriptions**

Reach 1 is approximately 800 feet long and extends along Kress Creek from the storm sewer outfall located south of Roosevelt Road on the east side of the EJ&E Railway to the culvert at May Street. The EJ&E Railway is located immediately west of the upstream portion of this reach. The land type in this reach is primarily residential. Water depths are fairly shallow (e.g., one to three feet), and the creek bed is generally comprised of rocky material and larger-sized debris.

Reach 2 is approximately 1,000 feet long extending along Kress Creek from the culvert at May Street (i.e., the downstream limit of Reach 1) to the culvert at Joy Road. The portion of the creek is also referred to as Gunness Lake. The land type in this reach is residential and the bank area has several trees, predominantly along the eastern bank. This reach traverses several residential properties in close proximity to residential structures. Water depths are fairly shallow (e.g., one to two feet), with the exception of the northwest portion where depths are somewhat deeper, approximately 6 feet, and the creek bed is generally comprised of silts, sands, and some gravel. A site location map is provided as Figure 1-1.

## **1.3 Performance Standards**

The performance standards for the remedial action in Reaches 1 and 2 are as follows:

### **1. Removal of Material to Pre-Determined Elevations**

Tronox will remove targeted soils and sediment from the Sites to pre-determined Global Positioning System (GPS) survey points in accordance with the CDs. The pre-determined points for the areas within Reaches 1 and 2 are presented in the Excavation Verification Plan (Appendix A-2) of the Reach 1 FD/RA Work Plan (BBL, 2005a) and the Reach 2 FD/RA Work Plan (BBL, 2005b).

## 2. Restoration and Mitigation Activities

Tronox shall restore and mitigate impacted areas and perform monitoring and maintenance activities in accordance with the *Conceptual Mitigation and Restoration Design Plan* (BBL, 2005c), the Reach 1 Restoration Plan (Appendix B), and Section 2.1.6 of the Reach 1 FD/RA Work Plan (BBL, 2005a); and the Reach 2 Restoration Plan (Appendix B), and Section 2.1.6 of the Reach 2 FD/RA Work Plan (BBL, 2005b).

### 1.4 Report Organization

This report was prepared in accordance with the requirements specified in Section 4.3 – Final Completion Report(s) of the CD (Appendix K), as well as Section 2.7 in the FD/RA Work Plan for Reach 1 (BBL, 2005a) and Section 2.7 in the FD/RA Work Plan for Reach 2 (BBL, 2005b). This report summarizes the remedial action construction and restoration activities performed for Reaches 1 and 2, and includes the following sections:

- Section 1 – Introduction
- Section 2 – Remedial Action Summary
- Section 3 – Design Deviations
- Section 4 – Quality Assurance and Quality Control
- Section 5 – Record Drawings
- Section 6 – Representative Project Photographs
- Section 7 – Records of Removal Quantities and Off-Site Waste Disposal
- Section 8 – Monitoring of Restoration/Mitigation Areas



- Section 9 – References

### **1.5 Document Control**

The project records (Documents) required by the CD for the subject remedial actions have been prepared and are maintained in the file room at the Tronox offices located at the REF, in the custody of Tronox's Document Control Group. Records are periodically transferred to the Tronox's records management center in Oklahoma City, Oklahoma.

A copy of Tronox's project file index can be found in Appendix A. These Documents shall remain on file in accordance with the CD pursuant to the requirements of USEPA. At the end of the required retention time, USEPA will be notified at least 90 days prior to document destruction and will be given the opportunity to assume custody of the Documents if requested.

### **1.6 Good Faith Estimate of Total Costs Incurred**

Tronox estimates that the total cost for completing Reaches 1 and 2 remedial action is approximately \$20,192,071, and that figure includes Consent Decree settlement payments. This good faith cost estimate for Reaches 1 and 2 is based on the primary remedial construction activities that occurred in Reaches 1 and 2 from August 1, 2005 to January 31, 2006.

## **2. Remedial Action Summary**

This section summarizes the major tasks and presents a chronological description of major remedial action activities performed in Reaches 1 and 2.

### **2.1 General**

In September 2003, Tronox retained ARCADIS (formerly known as ARCADIS BBLES and BBL Environmental Services) to implement the remedial action at the Sites. The remedial action consisted of excavation of “targeted materials,” as defined in the CD, and site restoration. A series of verification points were established that defined the horizontal locations and vertical elevations of excavation limits. These predetermined verification points along with other remedial design criteria were adhered to during the remedial action to monitor the work performance. Any deviations from the design submittals are discussed in Section 3 of this report.

In addition to the FD/RA Work Plans, a number of relevant project documents have been prepared and followed during the implementation of the remedial action construction, restoration, and monitoring. Below is a list of these documents:

- Conceptual Mitigation and Restoration Design Plan (BBL, 2005c)
- Common Scoping and Planning Documents (BBL, 2005d)
  - Document 200: Quality Assurance Project Plan (QAPP)
  - Document 300: Construction Quality Assurance Plan (CQAP)
  - Documents 400 and 401: Health and Safety Plans (HASPs)
  - Document 500: Emergency Contingency Plan
  - Document 600: Dust Control Plan
  - Document 700: Air Monitoring Plan
  - Document 800: Global Positioning System Verification Plan
  - Document 900: Targeted Material Stabilization Plan

## **2.2 Description of Remedial Action Activities**

Tronox, through its own personnel and qualified contractors, completed remedial activities at Reaches 1 and 2 in a sequential order. This included performing primary remedial activities in Reach 1 between August and October 2005, and Reach 2 between October 2005 and December 2005. Additional site restoration work was performed in Reaches 1 and 2 in 2006 and 2007. The remedial action consisted of five major tasks. These major tasks and a description of typical activities performed under each task are as follows:

- **Site Preparation** – Activities performed prior to excavation included utilities clearance, setup of temporary construction facilities, work force mobilization, and installation of erosion and sedimentation controls, haul roads, staging areas, and river water diversion measures.
- **Overburden Removal and Verification** – This included excavation of overburden material, excavation limits verification using survey grade GPS and Total Station Land Surveying Equipment, verification sampling of overburden material for reuse using gamma ray survey technology by a field health physics technician followed by composite soil sampling and analysis, and stockpiling of overburden for reuse.
- **Excavation and Offsite Disposal of Targeted Materials** – This included removal of targeted materials to predetermined verification points, verification of excavation limits using survey grade GPS and Total Station Land Surveying Equipment, and direct loading or stockpiling/loading and transport of excavated targeted materials to the REF located in West Chicago, Illinois for subsequent offsite transportation (via rail) and disposal.
- **Excavation Verification** – This included GPS survey verification of excavation depths in accordance with the GPS Verification Plan (Document 800), comparison of as-built excavation data to the verification points, preparation of GPS verification packages, and notification to USEPA remedial project manager/on-scene coordinator (RPM/OSC), Illinois Emergency Management Agency/Division of Nuclear Safety (IEMA/DNS), and Local Communities Representatives of verification results.
- **Restoration** – Activities to restore the site for beneficial use including backfilling, topsoil placement and seeding, installation of erosion control

measures, planting of trees, shrubs and aquatic plants, and other riverbank restoration elements.

## **2.3 Chronological Narrative of Remedial Activities Performed**

### *Pre-Construction Activities*

The following steps were completed prior to the beginning of the excavation and restoration activities for Reaches 1 and 2:

- On July 20, 2005 the Local Communities approved the FD/RA Work Plan for Reach 1.
- On July 23, 2005 USEPA conditionally approved a draft version of the FD/RA Work Plan for Reach 1.
- On August 9, 2005 a pre-construction meeting was held for the remedial work in Reach 1 at Tronox's facility in West Chicago, Illinois, and was attended by Tronox, ARCADIS, the regulating agencies (i.e., USEPA RPM/OSC, IEMA/DNS, Illinois Environmental Protection Agency), and the Local Communities representatives (i.e., Christopher B. Burke Engineering West, Ltd. [CBB West]).
- On August 19, 2005 USEPA approved the final FD/RA Work Plan for Reach 1.
- On October 5, 2005 USEPA granted approval to begin site preparation activities at Reach 2.
- On October 18, 2005 a pre-construction meeting was held for the remedial work in Reach 2 at Tronox's facility in West Chicago, Illinois, and was attended by Tronox, ARCADIS, the regulating agencies (i.e., USEPA RPM/OSC, IEMA/DNS, Illinois Environmental Protection Agency), and CBB West.
- On October 25, 2005 USEPA issued a written approval for the final FD/RA Work Plan for Reach 2.
- October 27, 2005 CBB West, on behalf of Local Communities, approved the final FD/RA Work Plan for Reach 2.

- Prior to use, the source of borrow soil to be used as backfill was identified and the potential borrow soil was tested to verify that it had met the project criteria for backfill. Testing results of borrow soil are kept on file at the Tronox's REF in West Chicago, Illinois.
- USEPA, IEMA/DNS, the City of West Chicago and the Local Communities Representative were notified in advance of the Tronox's intent to perform GPS Verification Survey on a weekly basis.

#### Remedial Action Activities

A chronological description for remedial activities performed at Reaches 1 and 2 are presented below:

- Labor, equipment, and materials necessary for the work were mobilized to Reach 1 beginning on August 9, 2005.
- In August and September 2005, site areas in Reach 1 were prepared including, but not limited to, utility clearance, construction of support/staging areas and haul roads, installation of temporary diversion and erosion control measures, establishing site access control points, and installation of the main bypass and 48-inch diameter storm sewer bypass pumping systems.
- From August to October 2005, structural steel sheeting (main sheeting and the southern reaction sheeting) with associated walers and soldier beams were installed north and south of the box culvert on the east side of the EJ&E railway. The permanent sheeting was left in place per an agreement with EJ&E upon the completion of Reach 1 remedial work.
- The main bypass and the 48-inch diameter storm sewer bypass pumping systems were operated from September to December 2005 during Reach 1 remedial work.
- Removal of overburden and targeted material in Reach 1 began from the Pond No. 7 area, the pool located just east of the EJ&E railway embankment, on September 2, 2005, progressed downstream toward May Street, and was completed on November 3, 2005. Portions of the targeted material were stabilized with lime as necessary for offsite transportation and disposal.

- Labor, equipment, and materials necessary for the work were transitioned from Reach 1 to Reach 2 beginning on October 24, 2005. Reach 2 site preparation activities were performed including, but not limited to, utility clearance, construction of support/staging areas and haul roads, installation of temporary diversion and erosion control measures, and setting up bypass pumping and dewatering systems.
- The main and the 48-inch diameter storm sewer bypass pumping systems were operated for the combined Reaches 1 and 2 using a common sump in Pool No. 7 from October to December 2005 during Reach 2 remedial work.
- Excavation of overburden and targeted material in Reach 2 began on October 25, 2005 by May Street area, and was completed at Joy Road on December 10, 2005.
- Field verification of overburden and targeted material excavation limits for Reaches 1 and 2 was performed with survey grade GPS and Total Station Land Surveying Equipment to demonstrate that the performance standards for overburden segregation and targeted material removal were met. GPS verification points achieved between September 2 and December 10, 2005 for areas in Reaches 1 and 2 were summarized on a daily basis and distributed as the excavation work progressed. A list of the GPS survey data summaries is provided in Appendix B. Through the distribution of GPS packages, the regulatory agencies and Local Communities representatives were notified of the results of the GPS Verification Survey for the bottom of overburden and targeted material.
- On November 4, 2005, the Notification of Successful GPS Verification Survey packages for the bottoms of overburden and targeted material for all the Reach 1 areas (R1-1 through R1-10) were distributed to the regulating agencies and Local Communities representatives, and are provided in Appendices C and D, respectively. Through the GPS packages distribution, the regulatory agencies and Local Communities representatives were notified of the results of the GPS Verification Survey for the removal of overburden and targeted material in Reach 1.
- On December 23, 2005, the Notification of Successful GPS Verification Survey packages for the bottoms of overburden and targeted material for all the Reach 2 areas (R2-1 through R2-5) were distributed to the regulating agencies

and Local Communities representatives, and are provided in Appendices E and F, respectively. Through the GPS packages distribution, the regulatory agencies and Local Communities representatives were notified of the results of the GPS Verification Survey for the removal of overburden and targeted material in Reach 2.

- Air quality was monitored during the excavation of overburden and targeted materials during Reaches 1 and 2 remedial activities, and the air monitoring data were summarized each month and included in the monthly progress reports that were distributed by Tronox to the regulating agencies and Local Communities representatives.
- Excavated soils and other materials (e.g., roots, tree stumps) containing targeted material were transported to the REF where they were managed under the IEMA/DNS Radioactive Material License #STA-583 and subsequently loaded on railcars and transported under the Tronox LLC US DOT Exemption #DOT-E-11075 to the Energy Solutions Facility (State of Utah - 11e.(2) By Product Materials License #UT2300478) for final disposal.
- During the remediation of Reaches 1 and 2, water column monitoring was performed upstream and downstream of active remedial areas on a daily basis during in-river activities to identify and respond to potential water column impacts, if necessary. The monitoring data were compiled and summaries are provided in Appendix G.
- In November and December 2005, site restoration was performed in the areas within Reaches 1 and 2 that were disturbed by the project. Restoration activities included backfilling, final grading, placing of river rocks, seeding and installation of erosion control blankets, reinstallation of guard rail at May Street, repaving of a section of May Street, installation of rip rap and other stream enhancement features.
- From spring to winter 2006, additional restoration activities were performed in Reaches 1 and 2, including planting of trees and shrubs, maintenance of settled areas with topsoil and re-seeding, removal of non-native invasive species, installation of herbaceous plants and goose grid, installation of river rock and protective fencing around new trees to protect against beaver and deer activities, and restoration of the May Street road section shoulders.

- In May 2006 repairs were made to an eroded area in Reach 1 just downstream of Pool 7 and on the west bank of Kress Creek. A previous storm event eroded the bank at the southwest corner of Pool 7, which is located directly east of the box culvert that carries Kress Creek under the railroad embankment. A small channel was eroded that tied back into Kress Creek. The eroded channel was backfilled with clay to better withstand future storm events, and the bank along the southwestern corner of Pool 7 was lined with river rock to stabilize the bank. In October 2006, additional river rock was installed on the southern end of the eroded channel to fortify the bank where the eroded channel tied back into Kress Creek. The area where the eroded channel existed was topsoiled and re-seeded, following the clay backfill and river rock installations.
- In winter 2006, herbicides were applied in some areas of Reaches 1 and 2 to treat invasive species (reed canary grass, Canada thistle and teasel weeds).
- In 2006, restoration activities were also performed on a number of private properties associated with the remedial work in Reaches 1 and 2.
- From April to June 2007, the remaining trees and shrubs including aquatic plants in Reaches 1 and 2 were planted and protective fencing and mulch were installed. Final planting for Reaches 1 and 2 was completed on June 29, 2007.
- On September 12, 2007 ARCADIS issued the final planting record drawings for Reaches 1 and 2 to CBB West for their review and field verification.
- On September 20, 2007 a final site inspection for the restoration work at Reaches 1 and 2 was performed with regulatory agencies, Local Communities representatives, Tronox, and ARCADIS in attendance. Fourteen punch-list items (nine for Reach 1 and six for Reach 2) were identified and were subsequently completed by October 2, 2007.
- On October 2, 2007 ARCADIS formally issued the Post-Construction Inspection Report for Reaches 1 and 2 to the regulating agencies. In the Post-Construction Inspection Report, it was noted that all the remedial construction work items for Reaches 1 and 2, including the punch list items generated during the September 20, 2007 final site inspection, were completed as of October 2, 2007.



- Upon the conclusion of the remedial construction and restoration work on October 2, 2007, the mitigation and restoration monitoring activities for Reaches 1 and 2 officially began. It should be noted that the maintenance and monitoring activities at Reaches 1 and 2 were initiated before October 2, 2007 as work progressed.

## 2.4 Backfill Materials

Two primary types of materials were used as backfill for site restoration in Reaches 1 and 2, overburden material and imported material.

### Overburden Material Used as Backfill

Overburden soil was excavated and stockpiled at dedicated staging areas for subsequent gamma survey and sampling to demonstrate that the material did not exceed the approved cleanup criterion. Following the survey and soil sampling USEPA and IEMA/DNS representatives performed an independent survey of the stockpiled materials prior to their approval of the use of overburden as backfill. Overburden testing results are provided in Appendix H and are on file at Tronox's REF. Approximately 154 loose cubic yards of overburden were generated and reused to backfill Reach 1 and approximately 1,075 loose cubic yards of overburden were generated and reused to backfill Reach 2.

### Imported Backfill and Other Materials for Site Restoration

Off-site borrow soil sources and other materials such as river rock were identified and tested prior to being imported to the Sites for use in accordance with Document 200. The imported material sampling data are provided in Appendix I. The source of the earth fill, clay, and topsoil was Art Lootens and Son, Inc. facility, located at 0S551 Joliet Road, West Chicago, Illinois 60185. The source for river rock fill is Earth Inc. located at 455 West Bartlett Road, Bartlett, Illinois 60103.

### 3. Design Deviations

This section describes any deviations from design submittals associated with the Reaches 1 and 2 FD/RA Work Plans and the Common Scoping and Planning Documents during the implementation of the remedial action. Deviations are documented in three types of project documents, Non-Conformity Reports (NCRs), Corrective Action Reports (CARs), and Interim Change Notices (ICNs). In addition, quality system audits are performed periodically. Audit findings are documented as audit corrective action reports (ACARs), and the ACARs are classified as either a major or minor finding.

#### Non-Conformity Reports

A listing of the Non-Conformity Reports associated with the remedial action activities in Reaches 1 and 2 are presented in Table 3-1. Copies of the NCRs are on file at Tronox's REF.

#### Corrective Action Reports

There was one CAR issued for the Reach 1 remedial action activities and none for the Reach 2 remedial action activities. A brief summary of the CAR is provided below:

CAR No. KC-05-001 was issued on September 23, 2005 to document corrective actions for Reach 1 in response to a field audit and observations made by IEMA on September 21 and 22, 2005 concerning implementing safety and regulatory requirements (i.e., personal protective equipment, work area designations and decontamination procedures). The corrective actions took place between September 22 and 27, 2005, including review and reiteration of appropriate procedures and requirements with all site personnel.

#### Audit Corrective Action Reports

There were three ACARs with major findings for the Reaches 1 and 2 remedial action activities. A brief summary of the three ACARs with major findings is provided below:

- CAR No. 05-VA-04-01 was issued on October 21, 2005 to document a corrective action taken for Reach 1 in response to a Tronox quality control vendor audit finding (i.e., project personnel performing work without complete project training records in place). The corrective action was completed on

April 11, 2006, including the development of a personnel training record matrix to track and ensure the compliance of training requirements.

- CAR No. 05-VA-06-01 was issued on December 2, 2005 to document a corrective action taken for Reach 2 in response to a Tronox quality control vendor audit finding (i.e., performing railcar loading activities without a formal procedure and requirements to control the operation quality). The corrective action was completed on April 21, 2006 when ICN No. 5 to the Common Scoping and Planning Documents was issued incorporating the four West Chicago Procedures (WCP) (Nos. 607, 611, 632, and 652) for operations at the Railcar Loading Facility. Subsequently, ICN No. 12 to the Common Scoping and Planning Documents, issued January 28, 2008, deleted WCP No. 607, and revised WCO Nos. 611, 632, and 652.
- CAR No. 05-VA-06-02 was issued on December 2, 2005 to document a corrective action taken for Reach 2 in response to a Tronox quality control vendor audit finding (i.e., performing stabilization/mixing of soil and lime activities without a formal procedure and requirements to control the operation quality). On March 27, 2006 a draft Targeted Material Stabilization Plan (TMSP) was issued to the regulatory agencies for their review and approval. The TMSP was subsequently approved by USEPA and CBB West on April 14, 2006 and incorporated as ICN No. 2 to the Common Scoping and Planning Documents on April 21, 2006.

A listing of the minor findings of the Tronox vendor audit corrective action reports (ACARs) associated with the remedial action activities in Reaches 1 and 2 are presented in Table 3-1. Copies of the ACARs are on file at Tronox's REF.

#### Interim Change Notices

There were two ICNs issued for the Reach 1 remedial action activities and two ICNs for the Reach 2 remedial action activities. A brief summary of each ICN is provided:

- ICN No. 1 for Reach 1 was issued on November 1, 2005 to Document No. 106, Appendix E of the FD/RA Work Plan for Reach 1 to document revisions to the main bypass system and the stormwater outfall bypass system during Reach 1 site restoration and Reach 2 remedial action. This ICN was approved by USEPA and CBB West via e-mails dated November 2, 2005.

- ICN No. 2 for Reach 1 was issued on November 3, 2006 to Document No. 102, Figure A and the Excavation Verification tables of the FD/RA Work Plan for Reach 1 to document revisions to seven boundary points in Reaches 1 and 2 due to conflicts with the May St. culvert, and to clarify a duplication of boundary points in Reaches 1 and 2. This ICN was approved by USEPA via an e-mail dated November 4, 2005 and by CBB West via an e-mail dated November 3, 2005.
- ICN No. 1 for Reach 2 was issued on November 2, 2006 to Document No. 106, Appendix E of the FD/RA Work Plan for Reach 2 to document revisions to the main bypass system and the stormwater outfall bypass system during Reach 1 site restoration and Reach 2 remedial action. This ICN was approved by USEPA via an e-mail dated November 4, 2005 and by CBB West via an e-mail dated November 3, 2006.
- ICN No. 2 for Reach 2 was issued on November 3, 2006 to Document No. 102, Figure B and the Excavation Verification tables of the FD/RA Work Plan for Reach 2 to document revisions to seven boundary points in Reaches 1 and 2 due to conflicts with the May St. culvert, and to clarify a duplication of boundary points in Reaches 1 and 2. This ICN was approved by USEPA via an e-mail dated November 4, 2005 and by CBB West via an e-mail dated November 1, 2006.

In addition to these reach-specific ICNs, twelve ICNs have been issued to update the Common Scoping and Planning Documents. These ICNs are summarized in Table 3-2.

There were instances where the Work Plan details were slightly modified in the field to adjust to field conditions or to adopt better construction practices. These modifications have been documented in the record drawings. Examples of these field modifications that were implemented are:

- The potential limits of disturbance were modified as necessary and as field conditions permitted to support the remedial construction operations.
- Based on input received from private property owners and the Local Communities Representative, the location and type of tree and shrub plantings were modified once ARCADIS approved the proposed changes.

Variations from the design coordinates and elevations of the drillholes and boundary points were recorded in Appendices C through F (the Successful GPS Verification Survey for the Bottom of Overburden and the Bottom of Targeted Material, respectively for Reaches 1 and 2). In all cases, all of the targeted material was excavated and removed.

In the tables in Appendices C through F, comments were noted for the points in areas where Tronox directed all of the overburden material to be excavated and handled as targeted material. This was done for reasons of cost effectiveness in areas with minimum thickness and/or volume of overburden material, or where deep roots prevented the easy separation of overburden from the underlying targeted material. It was also noted in the tables where over excavation of target material was performed to address equipment rutting in a few areas.

#### **4. Quality Assurance and Quality Control**

The remedial action was performed under the auspices of an internally managed quality assurance (QA) program that was expressed in the form of a Quality Assurance Manual, which follows the international standard ISO 9000. The Quality Assurance Project Plan (QAPP; Document 200 of the Common Scoping and Planning Documents) was prepared in accordance with this manual. The QAPP was also prepared in accordance with USEPA QAPP guidance documents, in particular, the Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans (QAMS-005/80), and the Region V Model QAPP (1991).

The QAPP provided positive management control and included procedures and requirements to establish a record of conformance. This QAPP established standard operating procedures, change notices and field work instructions, and provided the operational and administrative requirements for the successful excavation and restoration of the Reaches 1 and 2 areas. Within this system, individual and organizational responsibilities were assigned for the activities and control measures necessary to achieve, verify, and document conformance. Adherence to this program, approved procedures, and regulatory compliance requirements were mandatory for all Tronox, ARCADIS, and ARCADIS subcontracted employees.

The key project Quality Assurance and Quality Control (QA/QC) elements associated with the remedial action at Reaches 1 and 2 are as follows:

- **Health and Safety** – Work was performed consistently in a safe and healthy manner to protect site workers, residents from the surrounding community, and the environment by implementing best practices such as following HASP procedures, monitoring air quality and river turbidity, and controlling dust emission.
- **Verification of Excavation Limits** – Excavation limits for the overburden segregation and targeted material removal were verified with GPS Verification Survey and documented in the Notification of Successful GPS Verification Survey packages that were distributed to the regulators and are on file in Tronox's file room at the REF.
- **Material Sampling - Overburden materials** were sampled prior to reuse as backfill. Sources of borrow soil were tested before the soil was imported for

site use. The documentation of the QA/QC testing is provided in Appendices H and I and is on file in Tronox's file room at the REF.

- Mitigation and Restoration Monitoring – Upon the completion of the remedial action, monitoring activities are carried out to evaluate the performance of the restored site. Performance standards were set such that adaptive management measures would be implemented should any deficiency be identified during the monitoring activities.

The results of the QA/QC activities are presented in appropriate project submittals or project files including GPS Verification Survey packages (Appendices C through F), Health and Safety records (on file), air monitoring and dust monitoring results (on file), sampling results of borrow soil (Appendix I), water column monitoring data (Appendix G), and annual reports summarizing the monitoring of performance standards for mitigation and restored areas (starting in 2007).

## **5. Record Drawings**

The site final grading plan, vegetation restoration record drawings and other restoration elements associated with the Reaches 1 and 2 remedial actions are documented in construction Record Drawings provided in Appendix J.

The record drawings were developed to reflect post-remediation conditions using the reach-specific design drawings as a base. All temporary structures (e.g., staging areas, haul roads, pumps, etc.) were removed from the drawings, and post-restoration survey information was incorporated to document final conditions at the site. Certain design drawings were not developed into record drawings (e.g., pre-construction plan and profile drawings) because the drawing would present redundant information or information that would not reflect the current conditions at the site.



## **6. Representative Project Photographs**

Photographic documentation was performed during the project activities. Project photographs depicting the day's construction activities were included in the Quality Control Daily Reports that were compiled by ARCADIS. Representative project photographs highlighting the major construction activities in Reaches 1 and 2 are provided in Appendix K.

## **7. Records of Removal Quantities and Off-Site Waste Disposal**

During the remedial actions in Reaches 1 and 2, in general two types of materials were removed, transported, and disposed off-site, including:

- Targeted material; and
- Non-targeted material that was not used as backfill.

Descriptions of these removed materials and their management are presented below. Records for material shipping and disposal, including truck shipment Bills of Lading (BOL) and waste manifests, are kept on file at Tronox's file room located at the REF, and are available for inspection.

### **7.1 Targeted Material**

A total volume of approximately 10,182 and 12,242 loose cubic yards of targeted material were loaded into covered trucks and transported to the REF dump pad from Reaches 1 and 2, respectively. This quantity was determined based on truck shipment Bill of Lading (BOL). This material consisted of targeted material and tarps and plastic liners used for the targeted material staging area. The soil at the dump pad was then moved to the REF direct load-out stockpile area where they were managed under the IEMA/DNS Radioactive Material License #STA-583. As each stockpile was created, it was sampled to verify radiological characteristics and moisture content, and was subsequently loaded into weighed gondola railcars. The loaded railcars were then transported under the Tronox LLC US DOT Exemption #DOT-E-11075, via train, to Energy Solutions' (formerly known as Envirocare of Utah Inc.) Clive Disposal Site (State of Utah - 11e.(2) By Product Materials License #UT2300478) for final disposal at:

Interstate 80, Exit 49  
Clive, Utah 84029  
Phone: (801) 532-1330

A total of approximately 12,707 and 16,015 tons of targeted material (as measured by the railcar scale at the REF) were shipped by railcar and disposed of at Energy Solutions facility in Clive, Utah from Reaches 1 and 2, respectively.

## **7.2 Non-Targeted Material Not Used as Backfill**

There was not any non-targeted material that was not used for backfill. The excavated overburden material that passed the radiological scanning and sampling process described in Section 2.2 was used for backfill in Reach 5A. Excavated overburden material that did not pass the radiological tests was treated as targeted material and transported to the REF for shipment by railcar to Utah for disposal.

## 8. Monitoring of Restoration/Mitigation Areas

### 8.1 Introduction

Previous sections of this report summarized the remedial and restoration activities performed in Reaches 1 and 2. Record Drawings (Appendix J) were prepared to document the locations that the various seed mixes were applied and the species and locations of planted trees and shrubs.

The *2007 Annual Monitoring Report* (ARCADIS, 2008) contains the results of monitoring and maintenance activities conducted to evaluate the health and progress of seeded and planted vegetation, the stability of restored banks and in-stream habitat structures in the reach, and the development of upland and wetland habitats towards meeting vegetation performance standards.

Monitoring of the restored banks, structures and habitats is required by the Statement of Work attached to the CD. The monitoring requirements are consistent with the methodologies presented in the *Conceptual Mitigation and Restoration Design Plan* (CMRDP) (BBL, 2005c) and the FD/RA Work Plans for Reaches 1 and 2 (BBL 2005a and BBL 2005b, respectively), which were reviewed and approved by the USEPA and representatives of the Local Communities. The Post-Construction Inspection Report for Reaches 1 and 2 was issued on October 2, 2007.

Restored banks, structures and vegetative communities are monitored annually during the spring and peak growing season (July/August) of each required monitoring year to evaluate stability and to collect quantitative vegetation data for comparison to performance standards. Tables 8-1 and 8-2 summarize the site-specific monitoring activities and performance standards for Reaches 1 and 2, respectively. Each required year of vegetation monitoring will terminate at the completion of the summer monitoring event. The first year of bank and structure monitoring will terminate with the completion of an inspection 10 to 14 months after their construction. Subsequent annual bank and structure monitoring events will occur 10 to 14 months after the previous monitoring event.

Bank stability monitoring is required to be performed for three years, with at least one event occurring after a storm that equals or exceeds the bankfull (approximately a 2-year recurrence frequency) discharge of 204 cubic feet per second (cfs) at the USGS gaging station on Kress Creek at the south end of Reach 3A (*Conceptual Design Report*; BBL, 2002). During bank inspection, restored banks will be inspected for signs

of erosion that would jeopardize the integrity of the bank. The limits of a “bank” extend from the toe of slope to the first observable break in slope. Signs of significant erosion include toe erosion causing undercutting, lateral erosion above the rock protection, exposed geotextile fabric, or vertical erosion down the face of the bank from overland flow entering the river. Stability will be evaluated by visual observation and comparison to design drawings, considering location in the stream, physical dimensions, and designed hydraulics. Bank areas found to be significantly eroding will be repaired in accordance with a maintenance activity design report that will be generated prior to the initiation of any major maintenance activity.

## **8.2 Qualitative Spring Inspection**

Qualitative inspections of restored areas, consisting of visual inspection of restored banks, structures and habitats in Reaches 1 and 2, are performed in the spring of each year, but may occur throughout the year to evaluate stability and vegetation status and to determine if any maintenance activities are required to meet performance standards. Observations made during qualitative inspections will be photo documented as field conditions permit (e.g., low enough water levels to observe banks and structures).

Activities to be conducted during the summer monitoring event are described below.

## **8.3 Quantitative Summer Monitoring Event**

The status of the restored habitats of Reaches 1 and 2 is evaluated during the summer inspection with regard to their ability to meet specific performance standards. The quantitative summer inspection will occur in July or August and consists of herbaceous vegetation data collection, assessment of the health of planted trees and shrubs, and photo-documenting the development of restored areas over time. Tables 8-1 and 8-2 summarize the performance standards for the quantitative monitoring efforts in Reaches 1 and 2, respectively. Details of the components of the summer monitoring effort are provided in the following sections.

### **8.3.1 Herbaceous Vegetation Monitoring**

The vegetation of restored banks and upland and wetland habitats is monitored to document the progress of the vegetation development towards the vegetation performance standards of 85% ground cover in uplands, 90% cover in wetlands, less than 15% cover by invasive species in restored bank areas, and less than 5% invasive species in uplands (Tables 8-1 and 8-2). Invasive upland species include, but are not

limited to: Common Reed (*Phragmites australis*), Annual Blue Grass (*Poa compressa*), Kentucky Blue Grass (*Poa pratensis*), Smooth Brome (*Bromus inermis*), Tall Fescue (*Festuca elatior*), Quack Grass (*Agropyron repens*), Sandbar Willow (*Salix interior*), Common Buckthorn (*Rhamnus cathartica*), Glossy Buckthorn (*Rhamnus frangula*), Honeysuckle (*Lonicera spp.*), and Reed Canary Grass (*Phalaris arundinacea*).

Monitoring of herbaceous vegetation utilizes 1-square meter sample plots located randomly in restored vegetation areas. The random plot locations are identified prior to entering the field using a random number generating program to select gridline intersections of a grid superimposed over the site. In the field, data collected from each plot consists of the visually estimated percent ground cover, the identification of all plant species present in the plot, and the visually estimated percent cover of each species in the plot. The percent ground cover of a restoration area is represented by the average percent cover values observed in all plots in that restoration area. The average percent ground cover is compared to the site-specific performance standard presented in Tables 8-1 and 8-2 to determine if the performance standard is met or if repairs are required to meet the performance standard by the third growing season. Corrective actions will be performed in accordance with a maintenance activity design report that will be generated prior to the initiation of any major maintenance activity or repair.

The following additional herbaceous vegetation-related performances standards apply to wetland vegetation:

- At least 90% of exposed areas will be vegetated by the end of the first three growing-season months (i.e., after July 1).
- By the end of the third full year after planting no area over the entire vegetated restoration area greater than 0.5 square meters should be devoid of vegetation.
- The relative importance value of total native plants ( $RIV_n$ ) shall increase from the end of the first full growing season to the end of the third full growing season after planting. The  $RIV_n$  is calculated by first calculating relative frequency ( $RF_s$ ) and relative coverage ( $RC_s$ ) of each species in each quadrat.  $RF$  is the measure of the level of occurrence of a single species in a given plant community.  $RC$  is the percentage of area occupied by a single species in a given plant community where the sum of the species' cover in that

community equals 100%. The relative importance value ( $RIV_s$ ) of each native species is then calculated by the equation:

$$\frac{RF_s + RC_s}{2 \times 100} = RIV_s$$

- A native mean Coefficient of Conservatism value or C (native mean C value) of greater than or equal to 3.5 shall be achieved for the entire restoration area by the end of the third year after planting. The C value is the measure of native plant community quality established by Swink and Wilhelm (1994). A Floristic Quality Index (FQI), which is a plant community measure of the C value, will also be calculated by multiplying the C value by the square root of the number of native species. The C value and FQI must increase from the first to the third year after planting.
- If the native mean C value, native FQI and/or  $RIV_n$  have not increased from the first to the third growing season, appropriate corrective actions will be taken to achieve the restoration intent of the design.
- By the end of the third full year after planting, none of the three most dominant plant species in the restoration areas may be non-native species or weedy species including: Cattail (*Typha spp.*), Common Reed (*Phragmites australis*), Annual Blue Grass (*Poa compressa*), Kentucky Blue Grass, (*Poa pratensis*), Purple Loosestrife (*Lythrum salicaria*), Sandbar Willow (*Salix interior*), Barnyard Grass (*Echinochloa crusgalli*), Common buckthorn (*Rhamnus cathartica*), Glossy Buckthorn (*Rhamnus frangula*), Honeysuckle (*Lonicera spp.*) or Reed Canary Grass (*Phalaris arundinacea*).

Vegetation metrics related to percent cover will be calculated from the vegetation plot data. Species-specific data collected from the vegetation plots are utilized to calculate the Mean C value, FQI and  $RIV_n$  metrics, where required, for evaluation against performance standards for these metrics that require an increase in each metric from the first growing season to the end of the third growing season. The performance standard requiring no areas larger than 0.5 square meters to be devoid of vegetation will be evaluated based on a site walkover specifically for that purpose. Areas greater than 0.5 square meters in size are noted and corrective actions will be performed in accordance with a maintenance activity design report that will be generated prior to the initiation of any major maintenance activity.

### 8.3.2 Tree and Shrub Survival Monitoring

The performance standard for tree and shrub survival in restored areas is 90% survival. The Record Drawings presented in Appendix J show the locations of the new trees and shrubs planted in Reaches 1 and 2 as part of the restoration effort. These Record Drawings reflect any revisions made since approval of the FD/RA Work Plans related to landowner and Local Communities representative input, or changes in the actual limits of disturbance from the limits anticipated at the time of plan preparation.

The Record Drawings also provide the baseline numbers of trees and shrubs for assessment of tree and shrub survival. Due to the relatively low number of trees and shrubs planted in Reaches 1 and 2, the percent tree and shrub survival is based on visual assessment of the health of all planted trees and shrubs. Individual counts are more efficient and more accurate in small areas with few plantings than the sub-sampling quadrat method originally proposed in the CMRDP.

Surviving trees and shrubs should exhibit healthy and abundant leaves, live buds, vertical orientation, no exposed roots, and green inner bark. Naturally recruited non-invasive tree and shrub species that are observed in restoration areas are also included in tree and shrub counts. The number of surviving and recruited tree and shrubs in the reach is divided by the number of trees and shrubs originally planted in the reach to calculate the percent survival in Reaches 1 and 2. Areas that will not meet the 90% survival performance standard by the third monitoring event will receive supplemental plantings in accordance with a maintenance activity report that will be generated prior to the initiation of any major maintenance activity.

### 8.3.3 In-Stream Structure Monitoring

Monitoring of constructed riffles in Reach 1 is performed for a minimum of 3 years to evaluate stability and to respond to maintenance needs (no riffles were installed in Reach 2). Record drawings provide the locations, dimensions, and orientation of each constructed in-stream habitat structure. These record drawings provide the baseline conditions to which the observed condition of each structure will be compared to assess the stability and functionality of the structure. Constructed structures that have experienced bankfull flow conditions are inspected to evaluate their stability and function. The stability of in-stream structures must be evaluated at least once after a bankfull flow event. The stability assessment consists of visual observations of condition during the inspection and a comparison to structure design presented on the record drawings, considering location in the stream, physical dimensions, and



designed hydraulics. Monitoring of restored in-stream structure and habitat complexes is performed annually during low-flow conditions to maximize the visibility of the exposed portions of the structure. If it is determined that aquatic structures have been comprised to the extent that they are not functioning as intended, then maintenance activities will be performed in accordance with a maintenance activity design report that will be generated prior to the initiation of any major maintenance activity.

#### 8.3.4 Photo Documentation

Photographs are taken of restored areas to document observations and to provide a record of vegetation development over time. Permanent photograph locations are established in the field that provide a general overview of each restored bank, vegetative community, and constructed structure. A labeled wooden stake is installed at each photo location and its location is instrument surveyed so it can be reproduced for subsequent monitoring events if the stake is removed or lost. Photographs with captions describing the location and direction of photograph are provided in a photo log appendix to the annual monitoring report.

### 8.4 Report Preparation

A monitoring report is prepared each year of the required monitoring period. The first annual monitoring report for Reaches 1 and 2 was issued in January 2008 following the 2007 growing season. The monitoring report summarizes the observations during the field monitoring activities, presents data tables with the required vegetation metrics calculations, and provides photographs of restored areas from permanent locations to document the temporal development of vegetation. If the restoration monitoring standards presented above are not achieved in Reaches 1 and 2 within three years of the completion of restoration, appropriate corrective restoration measures will be performed in accordance with a maintenance activity report that will be generated prior to the initiation of any major maintenance activity. If the restoration monitoring standards presented above are achieved in Reaches 1 and 2 within their required monitoring period, the restoration will be deemed successful and no further maintenance or monitoring will be required or performed.

## 9. References

- ARCADIS. 2008. *2007 Annual Monitoring Report - Reaches 1, 2, 3A and 5A of the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site*. DuPage County, IL. January 2008.
- Blasland, Bouck & Lee, Inc. (BBL). 2002. *Conceptual Design Report – Kress Creek/West Branch DuPage River*. DuPage County, IL. 2002.
- BBL, 2004. Remedial Investigation Report - Kress Creek/West Branch DuPage River and Sewage Treatment Plant Sites, Dupage County, IL, 2004.
- BBL, 2005a. Final Design/Remedial Action Work Plan – Reach 1 for the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site, Volumes 1 and 2, July 2005.
- BBL, 2005b. Final Design/Remedial Action Work Plan – Reach 2 for the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site, Volumes 1 and 2, October 2005.
- BBL, 2005c. Conceptual Mitigation and Restoration Design Plan, February 2005.
- BBL, 2005d. Common Scoping and Planning Documents for the Remedial Action at the Kress Creek/West Branch DuPage River Site and the River Portion of the Sewage Treatment Plant Site, May 2005.
- Swink, F. and G. Wilhelm. 1994. *Plants of the Chicago Region*. 4<sup>th</sup> Edition. Indianapolis: Indiana Academy of Science, 1994.



Table 3-1

**Kress Creek/West Branch Remedial Action Project**  
**Final Completion Report - Reaches 1 and 2**

Tronox LLC  
 DuPage County, Illinois

**Listing of Corrective Action Reports (CARs), Audit Corrective Action Reports (ACARs) and Non-Conformity Reports (NCRs)**

<b>CARs</b>	<b>Date Issued</b>	<b>Initiator</b>	<b>Description</b>	<b>Resolution Date</b>	<b>Comment</b>
KC-05-001	9/23/2005	IEMA	IEMA field observations in Reach 1 regarding safety requirements	9/27/2005	See Section 3.0 for summary.
<b>Major ACARs</b>	<b>Date Issued</b>	<b>Initiator</b>	<b>Description</b>	<b>Resolution Date</b>	<b>Comment</b>
05-VA-04-01	10/21/2005	Tronox	Project training requirements and documentation	4/11/2006	See Section 3.0 for summary.
05-VA-06-01	12/2/2005	Tronox	Need to adopt railcar loading operational procedures	4/11/2006	See Section 3.0 for summary.
05-VA-06-02	12/2/2005	Tronox	Need to develop targeted material stabilization/mixing procedures	4/11/2006	See Section 3.0 for summary.
<b>Minor ACARs</b>	<b>Date Issued</b>	<b>Initiator</b>	<b>Description</b>	<b>Resolution Date</b>	<b>Comment</b>
05-VA-04-02	10/21/2005	Tronox	Training materials did not have supervisor approval signature	4/11/2006	
05-VA-04-03	10/21/2005	Tronox	No test records onsite for DOT and Radworker training	4/11/2006	
05-VA-04-04	10/21/2005	Tronox	Reading assignments and work instructions not signed by supervisor	4/11/2006	
05-VA-04-05	10/21/2005	Tronox	Map in Overburden Verification Package KC-027A did not label three points	4/11/2006	Pertained to and addressed in Reach 5A Final Report.
05-VA-04-06	10/21/2005	Tronox	Deviations from WCP 372 regarding background and efficiency checks	4/11/2006	
05-VA-04-07	10/21/2005	Tronox	Log book for water column monitoring did not address >50 NTU delta on 09/14/05	4/11/2006	
05-VA-04-08	10/21/2005	Tronox	Maps/tables in GPS verification tables showed tolerance of 0.24', not 0.25'	4/11/2006	
05-VA-04-09	10/21/2005	Tronox	Validation and calibration checks were not documented in field log books	4/11/2006	
05-VA-04-10	10/21/2005	Tronox	GPS surveyors did not have documented training and reading assignments	4/11/2006	
<b>NCRs</b>	<b>Date Issued</b>	<b>Initiator</b>	<b>Description</b>	<b>Resolution Date</b>	<b>Comment</b>
BBLES 2005-001	11/7/2005	Arcadis	Deficiency in health and safety incident reporting and documentation	11/7/2005	
BBLES 2005-002	4/13/2006	Arcadis	Did not survey ground surface for two overburden points prior to excavating overburden and targeted material in one excavation event	4/13/2006	

Table 3-2

Kress Creek/West Branch Remedial Action Project  
Final Completion Report - Reaches 1 and 2

Tronox LLC  
DuPage County, Illinois

Interim Change Notice (ICN) Tracking Spreadsheet

Prepared By ARCADIS  
February 26, 2008

ICN No.	Referenced Document	Description of Change	Date Issued	Date Approved/Acknowledged by Regulators
<b>Final Design / Remedial Action Work Plan - Reach 1</b>				
1	106, Appendix E	Changing to a single bypass sump using Pool No. 7	E-Mailed on 11/1/2005, hard copy issued on 3/24/06	USEPA and CBB West 11/2/05
2	102, Figure A and Tables	Revised boundary points at May St. culvert, and clarification of redundant boundary points in Reach 1 & 2.	E-Mailed on 11/3/2005, hard copy issued on 3/24/06	USEPA 11/4/05, CBB West 11/3/05
<b>Final Design / Remedial Action Work Plan - Reach 2</b>				
1	106, Appendix E	Changing to a single bypass sump using Pool No. 7	E-Mailed on 11/2/2005, hard copy issued on 3/24/06	USEPA 11/4/2005, CBB West 11/3/05
2	102, Figure A and Tables	Revised boundary points at May St. culvert, and clarification of redundant boundary points in Reach 1 & 2.	E-Mailed on 11/3/2005, hard copy issued on 3/24/06	USEPA 11/4/05, CBB West 11/01/06
<b>Final Design / Remedial Action Work Plan - Reach 3A, 3B and 4</b>				
1	Volume 1, Figure 2-1	Revisions to the upstream and downstream water column monitoring locations	8/9/2006	USEPA 10/02/07, CBB West 11/01/06
2	Appendix A-2	Add points in Pod Nos. R5B-10 and R5C-3 to Reach 4	E-Mailed on 07/13/06, revised hard copy issued on 8/9/06	USEPA 07/14/06, CBB West 7/16/06
3	Drawing B-26	Substitute native creeping bent grass for lawn grass in Wetland 5B in Reach 4	8/9/2006	USEPA 10/02/07, CBB West 11/01/06
4	Drawing Nos. A-3B, A-5A and E-2	Combined Reach 3B and 4 into one bypass system, eliminated Reach 3B backflow dam and turbidity curtain.	8/9/2006	USEPA 10/02/07, CBB West 11/01/06
5	Appendix A-2	Transferred Route 59 bridge area points to subsequent separate work plan	11/13/2007	USEPA 11/20/07, CBB West 11/26/07
<b>Final Design / Remedial Action Work Plan - Reach 5B</b>				
1	Volume 1 of 2, Figure 2-1	Revisions to water column monitoring locations	Hard copy issued on 10/24/06	USEPA 10/02/07, CBB West 11/01/06
2	Vol. 2, Appendix E, Drawings E-4 and E-5	Relocated backflow dam for Reach 5B to upstream of the confluence	Hard copy issued on 10/24/06	USEPA 10/02/07, CBB West 11/01/06
<b>Final Design / Remedial Action Work Plan - Reach 5C and 5D</b>				
1, Rev. 1	Volume 1 of 3, Section 2.1.1.9 River Diversion for Excavation	Utilization of three-sided sheetpile enclosure method for isolating, dewatering, excavating backfilling and restoring small defined sections in Reach 5C.	E-mailed copy issued on 10/10/06, hard copy distributed on 10/24/06.	USEPA approved via e-mail on 10/13/06, and CBB West approved via e-mail on 10/12/06.
2, Rev. 1	Volume 1 of 3, Sections 2.1.1.5 and 2.1.1.7, Site Clearing and Haul Roads	Allowed clearing and installation of haul roads in winter of 2006-2007 in Reaches 5C and 5D to take advantage of frozen ground conditions to prevent rutting of equipment in excavation areas.	E-Mailed copy issued on 01/31/07, hard copy distributed on 09/11/07.	USEPA approved via e-mail on 10/02/07 and CBB West approved via e-mail on 02/01/07.
3, Rev. 1	Volume 1 of 3, Appendix A-1, Drawing A-2D	Deleted access road across four properties on west side of river in Reach 5D, and enlarged sheetpile enclosure for Pod No. R5D-14. [Note: This ICN was originally issued as ICN No. 2 to the Reach 5C and 5D FD/RA Work Plan. When it was discovered that ICN No. 2 was previously issued for the winter clearing and haul roads, this ICN was revised to ICN No. 3 to the Reach 5C and 5D FD/RA Work Plan.]	E-mailed copy issued on 06/28/07, and additional hydraulic review summary was e-mailed on 07/10/07. Hard copy was issued on 07/13/07. Revised ICN cover form with corrected ICN No. 3, Revision 1 was e-mailed on 08/31/07. Hard copy of revised ICN No. 3, Revision 1 form issued on 09/11/07.	USEPA approved via e-mail on 07/06/07. CBB West approved via e-mail on 07/10/07.
4	Volume 1 of 3, Appendix A-2, Excavation Verification Plan	Adoption of the property specific Excavation Plan for Parcel No. 0427104002 at 29W530 Forestview Drive in Reach 5D.	E-mailed copy issued on 07/17/07, hard copy distributed on 09/11/07.	USEPA 10/02/07, CBB West 12/11/07
5	Volume 1 of 3, Appendix A-1, Drawings A-2C and A-2D	Revised the major river crossing layout in Reach 5D to be diagonal with a sheetpiling section on the east end to construct the eastern off ramp.	E-mailed copy issued on 08/31/07, hard copy distributed on 09/11/07.	USEPA 10/02/07, CBB West 12/11/07
6	Volume 3 of 3, Appendix E - Geotechnical Design, Drawing E-3	Revised the temporary minor river crossing detail by substituting a wooden mat underlayment in lieu of the river rock and geogrid underlayment in the original design.	E-mailed copy issued on 08/31/07, hard copy distributed on 09/11/07.	USEPA 10/02/07, CBB West 12/11/07
7	Volume 3 of 3, Appendix E - Geotechnical Design, Section 2.2, Drawing Nos. E-1 and E-2	Performed excavation of Pod Nos. R5D-17 and R5D-18 in Reach 5D South utilizing benching construction methods in lieu of upgradient sheetpiling due to field conditions encountered.	E-mailed copy issued on 09/18/07, hard copy distributed on 09/24/07.	USEPA 10/02/07, CBB West 12/11/07

Table 3-2

**Kress Creek/West Branch Remedial Action Project**  
**Final Completion Report - Reaches 1 and 2**

Tronox LLC  
 DuPage County, Illinois

**Interim Change Notice (ICN) Tracking Spreadsheet**

Prepared By ARCADIS  
 February 26, 2008

ICN No.	Referenced Document	Description of Change	Date Issued	Date Approved/Acknowledged by Regulators
<b>Final Design / Remedial Action Work Plan - Reach 5E and 6</b>				
1	Volume 1, Sections 2.1.1.5 and 2.1.1.7, Site Clearing and Haul Roads	Allowed clearing and construction of access roads and staging areas in Reach 5E while the Reach 5E and 6 FD/RA Work Plan was going through the regulatory review and approval process.	E-mailed copy issued on 08/07/07, hard copy distributed on 09/11/07.	USEPA approved via e-mail on 08/10/07. CBB West approved via e-mail on 08/10/07.
2	Document 100, Volume 1	To allow for interim approval to begin remedial activities in Reach 5E North while the Reach 5E and 6 FD/RA Work Plan is going through the regulatory review and approval process.	E-mailed copy issued on 08/31/07, hard copy distributed on 09/11/07.	On 09/05/07 USEPA and CBB West granted interim approval to begin remedial work in Reach 5E North while the final review and approval of the Reach 5E and 6 FD/RA Work Plan continues to completion.
3	Appendix 1, Engineering Drawing A-2B	Revisions to minor river crossing layouts	E-mailed copy issued on 10/24/07, hard copy issued on 12/21/07.	USEPA 11/06/07, CBB West 10/28/07
4	Appendix 1, Engineering Drawing A-2E	Addition of two floating bridge river crossings in Reach 6 South and new access roads on the east bank.	Hand delivered draft at 01/24/08 regulatory meeting.	USEPA approved on 01/28/08, CBB West approved with conditions on 01/28/08.
<b>Common Scoping and Planning Documents</b>				
1	400, BBL HASP	Updated BBLES' Health & Safety Plan, primarily adding new loss prevention system sections and quicklime handling.	Posted on website for regulatory review on 04/13/06, hard copy issued on 4/27/06.	N/A
2	New Document 900	Targeted Material Stabilization Plan	Posted on website for regulatory review on 04/13/06, hard copy issued on 4/27/06.	USEPA 4/14/06, CBB West 3/28/06
3	401, Severson HASP	Updated Severson's Health & Safety Plan, adding quicklime handling procedures and loss prevention updates.	Posted on website for regulatory review on 04/13/06, hard copy issued on 4/27/06.	N/A
4	New SOP 226 for Real Time Monitoring	SOP - 226 Operation of the TSI Model 8520 Dust Trak Aerosol Monitor	Posted on website for regulatory review on 04/13/06, hard copy issued on 4/27/06.	CBB West 11/01/06, USEPA 01/22/08.
5	WCP Nos. 607, 611, 632 and 652.	Incorporation of former Kerr-McGee WCP's into the Common Planning and Scoping Documents for railcar loading operations.	Hard copies issued 4/27/06	CBB West 11/01/06, USEPA 01/22/08.
6	New SOP-227, Fish Relocation Plan and SOP-228, Mussel Relocation Plan	New SOPs added to the Common Documents package for Fish Relocation and Mussel Relocation	Hard copies issued 5/5/06	CBB West 11/01/06, USEPA 01/22/08.
7	WCP 320 Radioactive Material Shipments	Updated WCP 320 to current CFR, and includes trucking requirements from excavation site to REF.	Hard copies issued 8/9/06	CBB West 11/01/06, USEPA 01/22/08.
8	Table of Contents (TOC)	Updated TOC to reflect additional documents added.	Hard copies issued 8/9/06	CBB West 11/01/06, USEPA 01/22/08.
9	Document 200 - QAPP, New SOP 229	Added SOP 229 Monitoring Well and Piezometer Decommissioning and updated Table of Contents for the Common Scoping and Planning Documents	Hard copies issued 05/08/07	CBB West 01/31/08, USEPA 01/22/08
10	Document 300 - Construction Quality Assurance Plan	Revised Section 02420 - Restoration/Mitigation	Hard copies issued 05/08/07	CBB West 01/31/08, USEPA 01/22/08
11	Document 102, Appendix A-2 Excavation Verification Plan	Updated tables from Consent Decree to current	E-mailed on 12/13/07, hard copies issued on 12/21/07.	CBB West 01/31/08, USEPA 01/22/08
12	WCP Nos. 607, 611, 632 and 652.	Deleted WCP 607 as non-applicable, updated WCPs 611, 632 and 652.	Hard copies issued 02/07/08.	<a href="#">Awaiting Response From Regulators</a>

**Table 8-1****Kress Creek/West Branch Remedial Action Project  
Final Completion Report - Reaches 1 and 2****Tronox LLC  
DuPage County, Illinois****Summary of Monitoring Requirements in Reach 1**

<b>Habitat or Structure</b>	<b>Number or Quantity</b>	<b>Monitoring Endpoint</b>	<b>Monitoring Methodology</b>	<b>Performance Standard</b>	<b>Monitoring Duration</b>
Banks	1,700 feet	Stability	Visual monitoring	Visual stability after 2-year storm	3 years
Riffles	3	Elevation	Survey	Elevation within 0.25-feet of design	3 years
Pools	7	Elevation	Survey	Deeper than pre-disturbance	3 years
Shallow Marsh Wetlands	0.40 acres	% Cover; Vegetation metrics	Vegetation data collection plots	90% Cover in 3 years; annual increase in Mean C, FQI, and RIV <sub>N</sub> ; Minimum Mean C of 3.5 in third year; <15% cover of invasive weeds; No areas >0.5 square meter void of vegetation	3 years
Forested Wetlands	0.73 acres	% Cover; Woody plant survival	Vegetation data collection plots; Surviving woody plant counts	90% Cover in 3 years; 90% woody plant survival; annual increase in Mean C, FQI, and RIV <sub>N</sub> ; Minimum Mean C of 3.5 in third year; <5% cover of invasive weeds (<15% on blanks); No areas >0.5 square meter void of vegetation	3 years
Upland Plant Communities	3.85 acres	% Cover; Vegetation metrics; Woody plant survival	Vegetation data collection plots; Surviving woody plant counts	85% Ground cover; 90% woody plant survival	1 year
Ornamental Gardens	3	Landowner satisfaction	Visual monitoring	Landowner satisfaction	1 year

**Notes:**

1. Banks, pools and riffles are monitored in the spring.
2. Vegetation monitoring is performed in the summer.

**Table 8-2**

**Kress Creek/West Branch Remedial Action Project  
Final Completion Report - Reaches 1 and 2**

**Tronox LLC  
DuPage County, Illinois**

**Summary of Monitoring Requirements in Reach 2**

<b>Habitat or Structure</b>	<b>Number or Quantity</b>	<b>Monitoring Endpoint</b>	<b>Monitoring Methodology</b>	<b>Performance Standard</b>	<b>Monitoring Duration</b>
Banks	2,250 feet	Stability	Visual monitoring	Visual stability	3 years
Shallow Marsh Wetlands	0.54 acres	% Cover; Vegetation metrics	Vegetation data collection plots	90% Cover in 3 years; annual increase in Mean C, FQI, and RIV <sub>N</sub> ; Minimum Mean C of 3.5 in third year; <15% cover of invasive weeds; No areas >0.5 square meter void of vegetation	3 years
Upland Plant Communities	1.59 acres	% Cover; Vegetation metrics; Woody plant survival	Vegetation data collection plots; Surviving woody plant counts	85% Ground cover; 90% woody plant survival	1 year

**Notes:**

1. Banks are monitored in the spring.
2. Vegetation monitoring is performed in the summer.



**Figure**







**Appendices**

(Appendices A-I on CD)

**Appendix A**

File Index of Project Documents

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 1.0 General and Administrative
  - 1.1 General Correspondence
  - 1.2 Reports and Meeting Notes
  - 1.3 Legal
    - 1.3-1 Department of Justice
    - 1.3-2 NRD Issues
    - 1.3-3 Karagainus & White
  - 1.4 Government
    - 1.4-1 U. S. EPA
      - 1.4-1-1 Correspondence
      - 1.4-1-2 Consent Decree
        - 1.4-1-2-1 Administrative Order for RS/FS
      - 1.4-1-3 Unilateral Administration Order (UAO)
      - 1.4-1-4 Work Plan Review Comments
      - 1.4-1-5 Data Transmittal
    - 1.4-2 Previous Investigations
      - 1.4-2-1 1995 GPS Survey
      - 1.4-2-2 1993 GPS Survey
    - 1.4-3 City of West Chicago
    - 1.4-4 IEMA (formerly IDNS)**
    - 1.4-5 Illinois Dept. of Natural Resources
    - 1.4-6 DuPage County Dept. of Environmental Concerns
    - 1.4-7 Illinois Historic Preservation Agency
    - 1.4-8 DuPage County Forest Preserve (Research Permit)
    - 1.4-9 Corp. of Engineers
    - 1.4-10 Illinois Department of Transportation
    - 1.4-11 West Chicago Park District – Manville Oaks
    - 1.4-12 The Cenacle
    - 1.4-13 Department of the Army
    - 1.4-14 Permits

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 1.4-15 Communities/Christopher B. Burke Engineering
  - 1.4-15-1 Correspondence
  - 1.4-15-2 Environmental Studies
- 1.4-16 City of Warrenville
- 1.4-17 Illinois Environmental Protection Agency (IEPA)
- 1.5 Daily/Weekly Activity Reports
- 1.6 Insurance
- 1.7 Utilities
  - 1.7-1 EJ & E Railroad
- 1.8 Health and Safety
  - 1.8-1 Accident Reports**
  - 1.8-2 Safety Meetings**
  - 1.8-3 Vehicle Inspections**
  - 1.8-4 Site Safety Tour/Inspections**
- 1.9 Personnel Records (Including original attendance sheets)
  - 1.9-1 Training Materials**
  - 1.9-2 Job Descriptions**
- 1.10 Public Relations
  - 1.10-1 Newspaper Articles
- 1.11 Site Administration (Reference: Scope & Planning Docs.)**
- 1.12 Quality System
  - 1.12-1 Review Meetings**
  - 1.12-2 System Reviews/Audits**
  - 1.12-3 NCR's/CAR's (Logs)**
- 2.0 Accounting and Finance
  - 2.1 Cost Estimates
    - 2.1-1 Kerr-McGee
    - 2.1-2 Contractors
  - 2.2 AFE's
  - 2.3 Cost Accounting

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 2.4 Taxes
- 2.5 Financial Audits
- 3.0 Engineering
  - 3.1 Work Plan and Specifications (Reference: Scoping and Planning Docs)
    - 3.1-1 Risk Assessment and Pre-Design Plan and Biweekly Meeting Notes
    - 3.1-2 Investigation Work Plan Documents
    - 3.1-3 Remedial Design Work Plan Documents
    - 3.1-4 Remedial Action Work Plan Documents
  - 3.2 Engineering Drawings (See 7.1 for Individual Property Plans)
    - 3.2-1 Engineering Calculations
    - 3.2.2 Cross Sections
    - 3.2.3 Verification Drawings
      - 3.2-3-1 Base of Excavation
      - 3.2-3-2 Overburden Removal
    - 3.2.4 Reports
    - 3.2-5 Characterization
  - 3.3 Contracts - Engineering
    - 3.3-1 West Central Environmental Consultants/ProSource (Correspondence)
      - 3.3-1-1 Bidder Qualification
      - 3.3-1-2 Bid Package (Including Response & Analysis)
      - 3.3-1-3 Contract & Amendments
        - 3.3-1-3-1 Work Change Request
        - 3.3-1-3-2 Progress Invoices
      - 3.3-1-4 Estimates & Forecasts
      - 3.3-1-5 Schedules
      - 3.3-1-6 Reports
      - 3.3-1-7 Characterization Report
    - 3.3-2 Weston, Inc. (Correspondence)
      - 3.3-2-1 Bidder Qualifications
      - 3.3-2-2 Bid Package (Including Response & Analysis)

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

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- 3.3-2-3 Contract & Amendments
  - 3.3-2-3-1 Work Change Request
  - 3.3-2-3-2 Progress Invoices
- 3.3-2-4 Estimates & Forecasts
- 3.3-2-5 Schedules
- 3.3-2-6 Reports
- 3.3-3 R. H. Anderson (Correspondence)
  - 3.3-3-1 Bidder Qualifications
  - 3.3-3-2 Bid Package (Including Response & Analysis)
  - 3.3-3-3 Contract & Amendments
    - 3.3-3-3-1 Work Change Request
    - 3.3-3-3-2 Progress Invoices
  - 3.3-3-4 Estimates & Forecasts
  - 3.3-3-5 Schedules
  - 3.3-3-6 Reports
- 3.3-4 Independent Testing Support - (Correspondence)
  - 3.3-4-1 TSC
  - 3.3-4-2 Hazen
  - 3.3-4-3 Lancaster
- 3.3-5 T.L. Rice Inc. (Correspondence)
  - 3.3-5-1 Bidder Qualification (Resume')
  - 3.3-5-3 Contracts and Amendments
  - 3.3-5-6 Reports
- 3.3-6 BBL Inc. (Correspondence)
  - 3.3-6-1 Bidder Qualifications
  - 3.3-6-2 Bid Package (Including Response and Analysis)
  - 3.3-6-3 Contract and Amendments
    - 3.3-6-3-1 Change Orders (Work Changes)
    - 3.3-6-3-2 Invoices
  - 3.3-6-4 Reach Specific Alternatives Evaluation Report (RSAE)



## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 3.3-6-4-1 Comments to RSAE Report
- 3.3-6-5 Conceptual Design Report
  - 3.3-6-5-1 Comments to Conceptual Design Report
  - 3.3-6-5-2 Reach 8 Addendum
- 3.3-6-6 Conceptual Restoration Plan
  - 3.3-6-6-1 Comments to Conceptual Restoration Plan
- 3.3-6-7 Reports
  - 3.3-6-7-1 Transportation Plan
  - 3.3-6-7-2 ARARS
- 3.3-6-8 Detailed Design
  - 3.3-6-8-1 Engineering Calculations
  - 3.3-6-8-2 Drawings
  - 3.3-6-8-3 FEQ Modeling
  - 3.3-6-8-4 Operation and Maintenance
- 3.3-6-9 RI/FS
  - 3.3-6-9-1 Remedial Investigation/Comments
  - 3.3-6-9-2 Feasibility Study
- 3.4 Previous Investigations (Pre-1997)
- 3.5 Field Investigation (1997 to current)
  - 3.5-1 Surface Gamma Survey
    - 3.5-1-1 Field Data
    - 3.5-1-2 Maps
  - 3.5-2 Shallow Soil Test Holes
    - 3.5-2-1 1997 Borehole Field Logs
    - 3.5-2-2 1998 Borehole Field Logs
    - 3.5-2-3 1999 Borehole Field Logs
    - 3.5-2-4 2000 Borehole Field Logs
    - 3.5-2-5 2001 Borehole Field Logs
    - 3.5-2-6 2002 Borehole Field Logs
    - 3.5-2-7 Soil Boring Log Sheets

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 3.5-2-8 Radiological Lab Data
- 3.5-2-9 Land Surveying
- 3.5-2-10 Field Maps
- 3.5-2-11 Borehole Logging Master Spreadsheets & Checkprints
- 3.5-2-12 Underwater Soil Sample (Hazen)
- 3.5-2-13 Daily Summary
- 3.5-3 Deep Soil Borings
  - 3.5-3-1 Soil Boring Logs
  - 3.5-3-2 Downhole Gamma Logging
  - 3.5-3-3 Geotechnical Soil Testing
  - 3.5-3-4 Radiological Lab Data
  - 3.5-3-5 Land Surveying
  - 3.5-3-6 Field Maps
- 3.5-4 Piezometers/Staff Gauges/Stream Flow/Surface Water
  - 3.5-4-1 Soil Boring Logs
  - 3.5-4-2 Borehole Field Logs
  - 3.5-4-3 Radiological Lab Data
  - 3.5-4-4 Land Surveying
  - 3.5-4-5 Water Level Field Data
  - 3.5-4-6 Stream Flow Calculations
  - 3.5-4-7 Field Maps
  - 3.5-4-8 Chain of Custody
  - 3.5-4-9 Water Analysis (Manville OAKS Park Pond)
  - 3.5-4-10 Sediment Sampling
- 3.5-5 Field Log Books
- 3.5-6 Aerial Photos
- 3.5-7 Weston Tree Study
- 3.5-8 Weston Wetlands Maps for West Branch DuPage River
- 3.6 Data Output ARCHIVE - Including all extensions thru 3.6-3
- 4.0 Construction

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 4.1 BBL (Correspondence)
  - 4.1-1 Bidder Qualification (See 3.3-6-1)
  - 4.1-2 Bid Package (See 3.3-6-2)
  - 4.1-3 Contracts & Amendments
    - 4.1-3-1 Change Orders (Work Changes)
    - 4.1-3-2 Invoices
    - 4.1-3-3 Submittals
  - 4.1-4 Schedules
  - 4.1-5 Reports
    - 4.1-5-1 Manpower Estimate & Forecast
    - 4.1-5-2 QC Field Reports
    - 4.1-5-3 Safety/Incident Reports
    - 4.1-5-4 Turnover Documents
  - 4.1-6 Verification Data
    - 4.1-6-1 *Verf., Maps, and Data (Bottom of OB and BP)***
    - 4.1-6-2 *Field Logbooks***
    - 4.1-6-3 *Calibration Records (Raw Data GPS)***
  - 4.1-7 Maintenance Inspection Reports
- 4.2 Miscellaneous Contracts (RD-n-P Drilling)
- 5.0 Procurement - Purchase Orders (Filed numerically with approval documents, bid evaluation, receiving reports, specs, etc)
  - 5.1 Contractor Procurement and Meetings
    - 5.1-1 Property or Equipment Loss - Inventory
  - 5.2 Kerr-McGee Procurement
  - 5.3 Vendor List
- 6.0 Health Physics
  - 6.1 Air Monitoring
  - 6.2 Survey Data
    - 6.2-1 Backfill Sample Analysis – Report (Sources)
  - 6.3 Instrument/Equipment Calibrations and Quality Assurance (H.P. 17.0000)
  - 6.4 Respiratory Protection Program Maintenance

## Kress Creek

### File Index

(Retention Period is lifetime per Kerr-McGee Legal Department)

- 6.5 Dosimetry Monitoring Data
- 6.6 Safe Work Permits
- 6.7 Downhole and Gamma Logging
  - 6.7-1 Bridges - Westwind Division
- 6.8 Water Survey
- 6.9 Training
- 7.0 Property Completions
  - 7.1 Work Orders
    - 7.1-1 Parcel Folders (access agreements, photographs, etc.)
  - 7.2 Access Agreements
  - 7.3 Bills of Lading
  - 7.4 Materials Handled (Overburden Verification)
  - 7.5 Invoices
  - 7.6 Radiological Sampling and Data Verifications (Soil Samples)
    - 7.6-1 Excavation Depth Verifications
  - 7.7 Notifications / Verification Release from U.S. EPA
  - 7.8 Acceptance from City of West Chicago
  - 7.9 Property Video Survey
- 8.0 Closure Report

**Appendix B**

Summary Table of “GPS Points  
Achieved” Issued for the Bottoms  
of Overburden and Targeted  
Material for Reaches 1 and 2

## Appendix B

### Summary Table of “GPS Points Achieved” Issued for the Bottoms of Overburden and Targeted Material for Reaches 1 and 2

Reach Area	Points Achieved Date	Package Delivery Date and Method
R1-5	09/02/05	09/02/05 via e-mail
R1-5	09/08/05	09/09/05 via e-mail
R1-5	09/09/05	09/12/05 via e-mail
R1-5	09/12/05	09/13/05 via e-mail
R1-5	09/14/05	09/15/05 via e-mail
R1-5	09/15/05	09/16/05 via e-mail
R1-5	09/16/05	09/16/05 via e-mail
R1-5	09/20/05	09/21/05 via e-mail
R1-5	09/21/05	09/22/05 via e-mail
R1-5	09/22/05	09/23/05 via e-mail
R1-5	09/23-24/05	09/27/05 via e-mail
R1-5	09/26/05	09/27/05 via e-mail
R1-5	09/27/05	09/28/05 via e-mail
R1-5	10/03-05/05	10/06/05 via e-mail
R1-5, R1-9	10/06-08/05, 10/10/05	10/12/05 via e-mail
R1-5	10/11/05	10/13/05 via e-mail
R1-5	10/14/05	10/17/05 via e-mail
R1-5, R2-1, R2-2	10/25-26/05	10/27/05 via e-mail
R2-1, R2-2, R2-4, R2-5	10/27/05	10/31/05 via e-mail
R2-2	10/28/05	10/31/05 via e-mail
R1-5, R1-10, R2-2	10/31/05	11/01/05 via e-mail
R1-5, R2-2	11/01/05	11/02/05 via e-mail
R1-5, R2-2	11/02/05	11/03/05 via e-mail
R1-5, R2-2, R2-5	11/03/05	11/04/05 via e-mail
R2-2	11/04-05/05	11/07/05 via e-mail
R2-2	11/07-09/05	11/10/05 via e-mail
R2-2	11/10/05	11/11/05 via e-mail
R2-2	11/11-12/05, 11/14-15/05	11/15/05 via e-mail
R2-2, R2-3	11/16/05	11/17/05 via e-mail
R2-2, R2-5	11/17/05	11/18/05 via e-mail
R2-2, R2-4, R2-5	11/18-19/05	11/21/05 via e-mail
R2-2, R2-5	11/21-22/05	11/22/05 via e-mail
R2-2, R2-5	11/29-30/05, 12/01-03/05	12/05/05 via e-mail
R2-2	12/03/05	12/07/05 via e-mail
R2-2	12/05/05	12/07/05 via e-mail
R2-2	12/09-10/05	12/15/05 via e-mail

**Notes:**

Notifications of Successful GPS Verification Survey results for the bottom of overburden and bottom of targeted material were issued on September 1 and 2, 2005, respectively for Reach 1 Sections R1-1, R1-2, R1-3, R1-4, R1-5 (partial through 09/01/05), R1-6, R1-7, and R1-8.

**Distribution Initiator:**

Michael Savage, ARCADIS BBLES

Distribution List:

Mark Krippel, Tronox  
Michael Logan, Tronox  
Frank Schultz, Tronox  
Jeffery Williams, Tronox  
Rebecca Frey, USEPA  
Scott Hansen, USEPA  
Richard Allen, IEMA  
Kelly Grahn, IEMA  
Steve Shafer, REM  
Pat Kelsey, CBB West  
Kristine Meyer, CBB West  
Matt Scheffler, CBB West  
John Wills, CBB West  
Mark Graveling, ARCADIS BBL  
Heather Vandewalker, ARCADIS BBL  
Joseph Molina, ARCADIS BBLES  
Mike Crystal, Severson  
Rick Elia Jr., Severson  
Mark Schmitt, Severson  
Wade Calson, ProSource  
Jerry Krane, ProSource  
Jeff Walker

## **Appendix C**

Notification of Successful GPS  
Verification Survey for the Bottoms  
of Overburden, Reach 1 – All  
Sections (R1-1 through R1-10)



*Transmitted Via E-Mail*

**KC 055**

November 4, 2005

Mr. Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, Illinois 60185

Re: **Notification of Successful GPS Verification Survey  
For the Bottom of Overburden**  
Reach 1 – All Sections  
Remedial Action at the Kress Creek Project, West Chicago, IL  
BBLES Project #: 71014.003

Dear Mark:

In accordance with Section 2.1.5.2 "Notification" in the Reach 1 Final Design/Remedial Action (FD/RA) Work Plan for the above referenced project, BBL Environmental Services, Inc. (BBLES) is pleased to notify Kerr-McGee, the USEPA RPM/OSC and the Local Communities' Representative that a successful GPS Verification Survey was performed for the **Bottom of Overburden** for the following specified areas of excavation in Reach 1 at the Kress Creek Remedial Action Project in West Chicago (DuPage County), Illinois at the time and date noted below:

**1. GPS Verification Survey Package Issued on 09/01/05 with overburden points achieved through that date (Issued previously and not included in this package)**

Excavation Locations: Reach 1, Sections R1-1, R1-2, R1-3, R1-4, R1-5 (partial through 09/01/05), R1-6, R1-7 and R1-8

Date of Verification: 09/01/2005

Time of Verification: 5:00 PM CST

**2. This GPS Verification Survey Package Issued on 11/04/05 includes those overburden points achieved and documented in the above referenced package, and all remaining overburden points to complete in its entirety Reach 1.**

Excavation Locations: Reach 1: Remainder of Section R1-5, R1-9 and R1-10.

Date of Verification: 11/04/05

Time of Verification: 8:00 AM CST

In accordance with Section 2.1.5.1 “Concurrent Verification” of the Reach 1 FD/RA Work Plan, BBLES sent an e-mail each Friday with a weekly schedule for the next week that listed the projected locations and dates where excavations and GPS verification surveys would be performed. BBLES sent those weekly schedule e-mails to Rebecca Frey and Scott Hansen of USEPA, Richard Allen, Kelly Grahm and Steve Shafer of IEMA/DNS and John Wills of CBB West providing them the required 24 hour notice that the excavations and GPS verification surveys for the bottom of overburden material in the above listed areas would be completed during those weeks.

There are ten (10) attached Tables (Excel) prepared by ProSource Technologies, Inc. (ProSource) entitled “Kress Creek/ West Branch of DuPage River Verification Points, Bottom of Overburden” for the ten Reach 1 sections, and the tables list the design, actual and difference of the survey coordinates and elevations of the verification points located in the areas defined above under Excavation Locations. **It is important to note that all the data presented in the Reach 1 GPS Verification Survey overburden package issued on 09/01/05 remains the same in these attached tables, except some of the comments have been changed to provide more consistency to the comments section of the report.**

There were two points in Reach 1, Section R1-5 (Drillhole Points 1607t and 1608t) that show that the design bottom of overburden elevation was exceeded by 0.873 ft. and 0.402 ft. respectively, which exceeds the tolerance of 0.25 feet. In the area of those two overburden points, a contaminated sludge layer was found and was being excavated and removed for disposal as targeted material. Kerr-McGee directed that all the material in the area of Drillholes 1607t and 1608t was to be removed as targeted material. In the effort to chase and excavate this contaminated sludge layer, the ground surface elevations for Drillholes 1607t and 1608t were not surveyed until after the excavation of the sludge layer was begun. Therefore, although all of the material in the area of Drillholes 1607t and 1608t was excavated and treated as targeted material, the survey of the “ground surface” at those points was not able to be performed until the excavation was underway, which resulted in the excavation elevation exceeding the tolerance for overburden excavations. Nonconformance Report No. 1 for the Reach 1 FD/RA Work Plan will be submitted to document this situation.

The attached maps (pdf) prepared by ProSource divide Reach 1 into Figure 1 which shows the northern half of Reach 1 and Figure 2 which shows the southern half of Reach 1. The maps present the excavation locations identified above, and denote the location of each of the verification points that have been verified. The verification points listed in these attachments have been achieved and excavation of the targeted material in the specified excavation locations has proceeded in accordance with the prior preliminary verbal approval of these points based on the field monitoring of the regulators’ representatives. Documents pertaining to this survey are available for inspection at the BBLES/Sevenson construction office at Kerr-McGee’s REF Facility.

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

***Michael F. Savage***

Michael F. Savage, P.E.  
Senior Engineer II

Bot. of overburden, R1 completed 11-04-05.doc  
K-M File # KC 4.1-6-1

**BBL ENVIRONMENTAL SERVICES, INC.**  
Remedial Management & Construction

MFS/mfs  
Enclosures

cc: Michael Logan, Kerr-McGee  
Frank Schultz, Kerr-McGee  
Steve Wallace, Kerr-McGee  
Jeffery Williams, Kerr-McGee  
Rebecca Frey, USEPA  
Scott Hansen, USEPA  
Richard Allen, IEMA  
Kelly Grahn, IEMA  
Steve Shafer, REM/IEMA  
Pat Kelsey, CBB West  
Kristine Meyer, CBB West  
Matt Scheffler, CBB West  
John Wills, CBB West  
Mark Gravelding, BBLES  
Joseph Molina, BBLES  
Heather Vandewalker, BBLES  
Jeff Walker, BBLES  
Michael Crystal, Severson  
Rick Elia, Jr., Severson  
Mark Schmitt, Severson  
Wade Carlson, ProSource  
Jerry Krane, ProSource

8/4/2008

Survey Instrument: Trimble 5800 / Trimble S6

Environmental Scientist: Amy Ruta

Geologist: Dan Ryar

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-1

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-1-1524t	1017784.000	1893674.000	GS	1017783.935	1893673.938	719.887	-0.065	-0.062	NA	
1	R1-1-T1	1017784.800	1893682.400	GS	1017784.771	1893682.383	718.299	-0.029	-0.017	NA	
1	R1-1-T2	1017782.700	1893674.000	GS	1017782.763	1893673.910	720.353	0.063	-0.090	NA	
1	R1-1-T3	1017786.500	1893674.000	GS	1017786.550	1893674.091	718.894	0.050	0.091	NA	
1	R1-1-T4	1017782.200	1893665.500	GS	1017782.171	1893665.440	718.259	-0.029	-0.060	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

8/4/2008

Survey Instrument: Trimble S6  
Environmental Scientist: Amy Ruta  
Geologist: Dan Ryan

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-2-541t	1017799.000	1893673.000	GS	1017798.962	1893673.092	715.293	-0.038	0.092	NA	
1	R1-2-T1	1017797.500	1893682.000	GS	1017797.555	1893682.068	718.691	0.055	0.068	NA	
1	R1-2-T2	1017794.000	1893673.500	GS	1017794.040	1893673.535	715.798	0.040	0.035	NA	
1	R1-2-T3	1017804.000	1893673.500	GS	1017804.017	1893673.433	715.719	0.017	-0.067	NA	
1	R1-2-T4	1017802.500	1893667.500	GS	1017802.607	1893667.459	716.006	0.107	-0.041	NA	
1	R1-2-T5	1017797.000	1893665.000	GS	1017796.917	1893665.039	715.411	-0.083	0.039	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Overburden  
Reach 1 Section R1-3

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-3-1324t	1017871.000	1893644.000	GS	1017871.033	1893643.950	716.791	0.033	-0.050	NA	
1	R1-3-1341t	1017875.000	1893625.000	GS	1017875.034	1893624.965	716.732	0.034	-0.035	NA	
1	R1-3-551t	1017869.000	1893637.000	GS	1017869.026	1893637.048	716.379	0.026	0.048	NA	
1	R1-3-T1	1017868.000	1893647.000	GS	1017868.039	1893646.883	716.806	0.039	-0.117	NA	
1	R1-3-T10	1017875.500	1893618.000	GS	1017875.582	1893617.973	716.814	0.082	-0.027	NA	
1	R1-3-T11	1017878.000	1893618.000	GS	1017877.977	1893618.024	716.727	-0.023	0.024	NA	
1	R1-3-T2	1017873.000	1893647.000	GS	1017872.990	1893646.932	716.968	-0.010	-0.068	NA	
1	R1-3-T3	1017866.000	1893644.000	GS	1017866.059	1893643.982	716.504	0.059	-0.018	NA	
1	R1-3-T4	1017873.500	1893644.000	GS	1017873.529	1893644.141	716.997	0.029	0.141	NA	
1	R1-3-T5	1017865.500	1893637.000	GS	1017865.353	1893637.018	716.078	-0.147	0.018	NA	
1	R1-3-T6	1017870.500	1893637.000	GS	1017870.420	1893636.906	716.476	-0.080	-0.094	NA	
1	R1-3-T7	1017872.500	1893625.000	GS	1017872.541	1893624.942	716.815	0.041	-0.058	NA	
1	R1-3-T8	1017877.500	1893625.000	GS	1017877.526	1893624.987	716.528	0.026	-0.013	NA	
1	R1-3-T9	1017873.000	1893618.000	GS	1017872.986	1893617.938	717.009	-0.014	-0.062	NA	

Δ Elevation > 0.5 ft Blue  
Δ Elevation 0.5 to -0.25 ft Green  
Δ Elevation < -0.25 ft Red

Δ Easting/Northing < or = 0.2 ft Green  
Δ Easting/Northing > 0.2 ft Blue

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Overburden  
 Reach 1 Section R1-4

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-4-1466t	1017948.000	1893488.000	GS	1017948.096	1893488.061	721.259	0.096	0.061	NA	
1	R1-4-T1	1017947.000	1893492.500	GS	1017947.031	1893492.487	721.337	0.031	-0.013	NA	
1	R1-4-T2	1017952.000	1893492.500	GS	1017952.069	1893492.537	721.626	0.069	0.037	NA	
1	R1-4-T3	1017944.000	1893488.000	GS	1017944.077	1893487.987	720.860	0.077	-0.013	NA	
1	R1-4-T4	1017943.500	1893481.000	GS	1017943.488	1893481.093	720.967	-0.012	0.093	NA	
1	R1-4-T5	1017951.500	1893481.000	GS	1017951.536	1893480.925	721.608	0.036	-0.075	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

11/3/2005

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-100t	1017949.000	1892997.000	714.7	1017948.932	1892996.984	714.835	-0.068	-0.016	0.135	
1	R1-5-10t	1017830.000	1893625.000	GS	1017829.916	1893625.046	714.164	-0.084	0.046	NA	
1	R1-5-11t	1017840.000	1893625.000	GS	1017839.972	1893625.085	715.871	-0.028	0.085	NA	
1	R1-5-1285t	1017812.000	1893637.000	GS	1017812.050	1893637.023	715.836	0.050	0.023	NA	
1	R1-5-1286t	1017822.000	1893637.000	GS	1017822.015	1893637.055	716.087	0.015	0.055	NA	
1	R1-5-1287t	1017832.000	1893637.000	GS	1017832.007	1893637.008	716.245	0.007	0.008	NA	
1	R1-5-1305t	1017842.000	1893637.000	GS	1017841.971	1893636.929	716.195	-0.029	-0.071	NA	
1	R1-5-1337t	1017856.000	1893611.000	714.9	1017855.922	1893610.981	715.393	-0.078	-0.019	0.493	
1	R1-5-1342t	1017855.000	1893601.000	GS	1017854.913	1893600.971	716.115	-0.087	-0.029	NA	
1	R1-5-1343t	1017845.000	1893601.000	GS	1017844.968	1893600.857	715.469	-0.032	-0.143	NA	
1	R1-5-1344t	1017846.000	1893611.000	GS	1017846.119	1893611.125	715.656	0.119	0.125	NA	
1	R1-5-1345t	1017858.000	1893588.000	715.2	1017858.006	1893587.883	715.481	0.006	-0.117	0.281	
1	R1-5-1346t	1017868.000	1893588.000	GS	1017868.081	1893588.027	716.136	0.081	0.027	NA	
1	R1-5-1347t	1017878.000	1893588.000	GS	1017878.012	1893587.941	716.859	0.012	-0.059	NA	
1	R1-5-1348t	1017888.000	1893588.000	715.7	1017887.985	1893588.034	716.581	-0.015	0.034	0.881	
1	R1-5-1349t	1017898.000	1893588.000	GS	1017897.893	1893587.946	716.619	-0.107	-0.054	NA	
1	R1-5-1353t	1017856.000	1893566.000	GS	1017856.091	1893566.021	715.370	0.091	0.021	NA	
1	R1-5-1354t	1017866.000	1893566.000	715.6	1017865.921	1893565.985	717.249	-0.079	-0.015	1.649	
1	R1-5-1355t	1017876.000	1893566.000	715.9	1017875.959	1893565.989	716.749	-0.041	-0.011	0.849	
1	R1-5-1356t	1017886.000	1893566.000	715.9	1017885.983	1893565.935	717.598	-0.017	-0.065	1.698	
1	R1-5-1357t	1017896.000	1893566.000	716.0	1017895.957	1893566.049	717.202	-0.043	0.049	1.202	
1	R1-5-1358t	1017906.000	1893566.000	GS	1017905.944	1893565.899	716.104	-0.056	-0.101	NA	
1	R1-5-1369t	1017846.000	1893542.000	713.5	1017845.913	1893542.002	713.960	-0.087	0.002	0.460	
1	R1-5-1370t	1017856.000	1893542.000	713.6	1017855.918	1893541.924	713.973	-0.082	-0.076	0.373	
1	R1-5-1371t	1017866.000	1893542.000	713.6	1017865.938	1893541.940	716.641	-0.062	-0.060	3.041	
1	R1-5-1372t	1017876.000	1893542.000	715.8	1017875.959	1893541.978	717.185	-0.041	-0.022	1.385	
1	R1-5-1373t	1017886.000	1893542.000	714.4	1017886.006	1893542.071	714.764	0.006	0.071	0.364	
1	R1-5-1374t	1017896.000	1893542.000	716.7	1017896.006	1893541.999	717.677	0.006	-0.001	0.977	
1	R1-5-1375t	1017906.000	1893542.000	715.7	1017905.961	1893542.041	717.118	-0.039	0.041	1.418	
1	R1-5-1376t	1017916.000	1893542.000	GS	1017916.010	1893541.951	715.481	0.010	-0.049	NA	
1	R1-5-1379t	1017921.000	1893542.000	GS	1017920.953	1893541.970	715.936	-0.047	-0.030	NA	
1	R1-5-1394t	1017846.000	1893517.000	712.3	1017845.981	1893516.940	712.753	-0.019	-0.060	0.453	
1	R1-5-1396t	1017866.000	1893517.000	714.7	1017866.005	1893516.950	714.934	0.005	-0.050	0.234	
1	R1-5-1397t	1017876.000	1893517.000	715.7	1017876.020	1893516.956	715.981	0.020	-0.044	0.281	
1	R1-5-1398t	1017886.000	1893517.000	716.0	1017885.992	1893516.945	716.401	-0.008	-0.055	0.401	
1	R1-5-1399t	1017896.000	1893517.000	715.3	1017896.006	1893516.987	715.623	0.006	-0.013	0.323	
1	R1-5-1401t	1017866.000	1893497.000	713.7	1017865.914	1893497.054	714.133	-0.086	0.054	0.433	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red



## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1402t	1017876.000	1893497.000	714.4	1017875.974	1893497.068	714.840	-0.026	0.068	0.440	
1	R1-5-1403t	1017856.000	1893474.000	GS	1017855.972	1893474.024	712.185	-0.028	0.024	NA	
1	R1-5-1404t	1017873.000	1893474.000	715.6	1017872.992	1893474.032	715.585	-0.008	0.032	-0.015	
1	R1-5-1405t	1017889.000	1893474.000	GS	1017888.861	1893473.858	715.187	-0.139	-0.142	NA	
1	R1-5-1406t	1017840.000	1893447.000	GS	1017839.927	1893446.962	713.226	-0.073	-0.038	NA	
1	R1-5-1407t	1017856.000	1893447.000	GS	1017856.041	1893447.027	715.467	0.041	0.027	NA	
1	R1-5-1408t	1017873.000	1893447.000	714.0	1017873.047	1893447.039	714.454	0.047	0.039	0.454	
1	R1-5-1427t	1017906.000	1893474.000	GS	1017906.020	1893474.037	715.358	0.020	0.037	NA	
1	R1-5-1431t	1017906.000	1893517.000	GS	1017905.896	1893516.969	716.093	-0.104	-0.031	NA	
1	R1-5-1432t	1017916.000	1893517.000	714.5	1017916.042	1893517.034	716.533	0.042	0.034	2.033	
1	R1-5-1436t	1017886.000	1893497.000	714.9	1017885.935	1893496.977	715.348	-0.065	-0.023	0.448	
1	R1-5-1437t	1017896.000	1893497.000	GS	1017896.020	1893497.042	715.928	0.020	0.042	NA	
1	R1-5-1438t	1017906.000	1893497.000	GS	1017905.989	1893497.059	715.638	-0.011	0.059	NA	
1	R1-5-1450t	1017890.000	1893447.000	GS	1017889.973	1893447.075	715.281	-0.027	0.075	NA	
1	R1-5-1453t	1017898.000	1893447.000	GS	1017897.924	1893447.110	715.432	-0.076	0.110	NA	
1	R1-5-1457t	1017840.000	1893422.000	712.9	1017840.007	1893421.938	713.356	0.007	-0.062	0.456	
1	R1-5-1458t	1017856.000	1893422.000	GS	1017856.036	1893421.906	715.139	0.036	-0.094	NA	
1	R1-5-1459t	1017873.000	1893422.000	GS	1017873.022	1893422.055	714.886	0.022	0.055	NA	
1	R1-5-1460t	1017889.000	1893422.000	GS	1017889.041	1893421.959	714.958	0.041	-0.041	NA	
1	R1-5-1470t	1017911.000	1893506.000	GS	1017910.980	1893506.047	715.810	-0.020	0.047	NA	
1	R1-5-1471t	1017896.000	1893488.000	GS	1017895.969	1893488.015	715.364	-0.031	0.015	NA	
1	R1-5-1474t	1017868.000	1893433.000	GS	1017867.979	1893432.971	715.067	-0.021	-0.029	NA	
1	R1-5-1476t	1017863.000	1893411.000	713.5	1017863.096	1893410.954	713.738	0.096	-0.046	0.238	
1	R1-5-1478t	1017877.000	1893397.000	714.6	1017877.082	1893397.096	715.079	0.082	0.096	0.479	
1	R1-5-1479t	1017899.000	1893397.000	714.6	1017898.955	1893397.031	714.986	-0.045	0.031	0.386	
1	R1-5-1486t	1017846.000	1893497.000	GS	1017846.055	1893497.161	713.540	0.055	0.161	NA	
1	R1-5-1487t	1017836.000	1893497.000	GS	1017835.899	1893497.113	715.124	-0.101	0.113	NA	
1	R1-5-1488t	1017826.000	1893497.000	GS	1017825.938	1893497.069	716.043	-0.062	0.069	NA	
1	R1-5-1489t	1017816.000	1893497.000	715.0	1017816.063	1893496.997	715.258	0.063	-0.003	0.258	
1	R1-5-1490t	1017806.000	1893497.000	715.1	1017805.997	1893497.040	715.437	-0.003	0.040	0.337	
1	R1-5-1491t	1017836.000	1893517.000	GS	1017835.986	1893516.975	714.794	-0.014	-0.025	NA	
1	R1-5-1492t	1017826.000	1893517.000	GS	1017825.959	1893516.981	715.583	-0.041	-0.019	NA	
1	R1-5-1493t	1017816.000	1893517.000	GS	1017816.024	1893517.003	715.674	0.024	0.003	NA	
1	R1-5-1494t	1017806.000	1893517.000	714.1	1017806.088	1893516.994	714.431	0.088	-0.006	0.331	
1	R1-5-1495t	1017810.000	1893542.000	GS	1017809.981	1893541.978	714.821	-0.019	-0.022	NA	
1	R1-5-1496t	1017800.000	1893542.000	GS	1017799.976	1893541.902	715.653	-0.024	-0.098	NA	
1	R1-5-1497t	1017790.000	1893542.000	GS	1017790.049	1893541.958	715.288	0.049	-0.042	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1498t	1017823.000	1893474.000	712.7	1017823.006	1893474.012	712.884	0.006	0.012	0.184	
1	R1-5-1499t	1017807.000	1893474.000	710.9	1017806.987	1893474.074	711.294	-0.013	0.074	0.394	
1	R1-5-1500t	1017836.000	1893542.000	711.8	1017835.943	1893542.059	712.121	-0.057	0.059	0.321	
1	R1-5-1501t	1017824.000	1893447.000	712.2	1017823.931	1893447.078	712.338	-0.069	0.078	0.138	
1	R1-5-15102t	1018007.600	1893206.300	716.7	1018007.631	1893206.366	717.090	0.031	0.066	0.390	
1	R1-5-1512t	1017781.000	1893611.000	GS	1017780.990	1893610.852	716.417	-0.010	-0.148	NA	
1	R1-5-15155t	1017911.000	1893195.100	713.5	1017910.963	1893195.147	713.787	-0.037	0.047	0.287	
1	R1-5-15158t	1017949.100	1893027.800	GS	1017949.121	1893027.872	712.678	0.021	0.072	NA	
1	R1-5-15160t	1017965.600	1892997.800	715.4	1017965.538	1892997.832	715.574	-0.062	0.032	0.174	
1	R1-5-1527t	1017791.000	1893474.000	GS	1017791.058	1893474.050	714.984	0.058	0.050	NA	
1	R1-5-1528t	1017774.000	1893474.000	GS	1017774.011	1893473.938	716.008	0.011	-0.062	NA	
1	R1-5-1529t	1017767.000	1893474.000	GS	1017767.103	1893474.005	719.103	0.103	0.005	NA	
1	R1-5-1530t	1017776.000	1893497.000	GS	1017776.058	1893497.038	715.154	0.058	0.038	NA	
1	R1-5-1531t	1017786.000	1893517.000	GS	1017786.088	1893516.973	716.279	0.088	-0.027	NA	
1	R1-5-1533t	1017796.000	1893497.000	GS	1017796.004	1893497.035	714.200	0.004	0.035	NA	
1	R1-5-1534t	1017776.000	1893517.000	714.8	1017775.952	1893517.072	715.288	-0.048	0.072	0.488	
1	R1-5-1535t	1017796.000	1893517.000	GS	1017795.950	1893516.973	714.234	-0.050	-0.027	NA	
1	R1-5-1536t	1017778.000	1893554.000	GS	1017777.981	1893554.014	716.297	-0.019	0.014	NA	
1	R1-5-1548t	1017876.000	1893383.000	GS	1017876.013	1893383.014	712.945	0.013	0.014	NA	
1	R1-5-1549t	1017915.000	1893397.000	GS	1017915.094	1893397.023	715.822	0.094	0.023	NA	
1	R1-5-1551t	1017916.000	1893383.000	GS	1017915.955	1893383.072	714.887	-0.045	0.072	NA	
1	R1-5-1553t	1017873.000	1893366.000	GS	1017873.035	1893366.096	713.036	0.035	0.096	NA	
1	R1-5-1565t	1017813.000	1893397.000	GS	1017812.994	1893397.037	715.299	-0.006	0.037	NA	
1	R1-5-1566t	1017796.000	1893397.000	GS	1017796.067	1893396.917	714.580	0.067	-0.083	NA	
1	R1-5-1567t	1017780.000	1893397.000	GS	1017779.970	1893396.938	714.567	-0.030	-0.062	NA	
1	R1-5-1568t	1017772.000	1893397.000	GS	1017772.081	1893397.046	715.118	0.081	0.046	NA	
1	R1-5-1569t	1017771.000	1893411.000	714.2	1017771.008	1893411.036	715.221	0.008	0.036	1.021	
1	R1-5-1570t	1017791.000	1893422.000	GS	1017791.033	1893422.088	714.839	0.033	0.088	NA	
1	R1-5-1571t	1017774.000	1893422.000	GS	1017774.050	1893422.036	715.269	0.050	0.036	NA	
1	R1-5-1572t	1017770.000	1893422.000	GS	1017769.979	1893422.039	716.156	-0.021	0.039	NA	
1	R1-5-1573t	1017791.000	1893447.000	GS	1017791.078	1893447.073	714.861	0.078	0.073	NA	
1	R1-5-1574t	1017774.000	1893447.000	GS	1017774.003	1893447.058	714.574	0.003	0.058	NA	
1	R1-5-1575t	1017771.000	1893447.000	715.7	1017771.021	1893446.970	716.164	0.021	-0.030	0.464	
1	R1-5-1585t	1017770.000	1893434.000	715.5	1017769.926	1893433.965	715.963	-0.074	-0.035	0.463	
1	R1-5-1586t	1017773.000	1893460.000	GS	1017772.925	1893459.978	716.478	-0.075	-0.022	NA	
1	R1-5-1587t	1017789.000	1893506.000	GS	1017788.985	1893505.974	715.060	-0.015	-0.026	NA	
1	R1-5-1588t	1017774.000	1893489.000	GS	1017773.990	1893489.022	716.383	-0.010	0.022	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1589t	1017778.000	1893530.000	715.0	1017778.063	1893529.963	715.323	0.063	-0.037	0.323	
1	R1-5-1590t	1017778.000	1893542.000	715.4	1017778.003	1893541.953	715.812	0.003	-0.047	0.412	
1	R1-5-1591t	1017823.000	1893542.000	712.3	1017823.088	1893542.004	712.563	0.088	0.004	0.263	
1	R1-5-1596t	1017806.000	1893566.000	708.9	1017806.129	1893566.016	711.726	0.129	0.016	2.826	
1	R1-5-1598t	1017786.000	1893566.000	712.1	1017785.969	1893566.069	713.359	-0.031	0.069	1.259	
1	R1-5-1599t	1017778.000	1893566.000	716.3	1017777.968	1893566.009	716.176	-0.032	0.009	-0.124	
1	R1-5-1600t	1017861.000	1893577.000	GS	1017861.019	1893576.919	715.657	0.019	-0.081	NA	
1	R1-5-1603t	1017821.000	1893577.000	708.1	1017821.085	1893576.817	706.275	0.085	-0.183	-1.825	Point was surveyed at existing ground surface
1	R1-5-1604t	1017811.000	1893577.000	GS	1017810.949	1893576.941	708.973	-0.051	-0.059	NA	
1	R1-5-1606t	1017779.000	1893577.000	711.8	1017778.917	1893576.909	714.851	-0.083	-0.091	3.051	
1	R1-5-1607t	1017788.000	1893588.000	710.2	1017788.002	1893587.968	709.327	0.002	-0.032	-0.873	K-M Directed to take all material as targeted, NCR #1
1	R1-5-1608t	1017798.000	1893588.000	708.3	1017798.064	1893587.959	707.898	0.064	-0.041	-0.402	K-M Directed to take all material as targeted, NCR #1
1	R1-5-1609t	1017808.000	1893588.000	707.2	1017808.060	1893588.096	708.177	0.060	0.096	0.977	K-M Directed to take all material as targeted
1	R1-5-1611t	1017828.000	1893588.000	708.0	1017827.877	1893587.988	709.759	-0.123	-0.012	1.759	K-M Directed to take all material as targeted
1	R1-5-1612t	1017838.000	1893588.000	710.3	1017837.963	1893588.004	711.338	-0.037	0.004	1.038	K-M Directed to take all material as targeted
1	R1-5-1614t	1017835.000	1893601.000	712.5	1017835.144	1893601.050	712.677	0.144	0.050	0.177	
1	R1-5-1615t	1017825.000	1893601.000	712.6	1017825.131	1893600.988	712.452	0.131	-0.012	-0.148	
1	R1-5-1616t	1017815.000	1893601.000	713.0	1017814.979	1893601.047	712.761	-0.021	0.047	-0.239	
1	R1-5-1617t	1017805.000	1893601.000	711.8	1017804.864	1893601.032	711.648	-0.136	0.032	-0.152	
1	R1-5-1618t	1017795.000	1893601.000	711.0	1017795.084	1893601.086	711.259	0.084	0.086	0.259	
1	R1-5-1619t	1017785.000	1893601.000	710.7	1017784.944	1893601.050	712.885	-0.056	0.050	2.185	K-M Directed to take all material as targeted
1	R1-5-1620t	1017806.000	1893611.000	711.9	1017805.944	1893611.035	711.674	-0.056	0.035	-0.226	
1	R1-5-1621t	1017796.000	1893611.000	711.6	1017796.100	1893611.074	711.457	0.100	0.074	-0.143	
1	R1-5-1623t	1017802.000	1893637.000	713.2	1017801.997	1893636.895	714.644	-0.003	-0.105	1.444	K-M Directed to take all material as targeted
1	R1-5-1625t	1017906.000	1893366.000	714.4	1017906.042	1893365.905	714.713	0.042	-0.095	0.313	
1	R1-5-1626t	1017923.000	1893366.000	GS	1017922.998	1893365.974	714.845	-0.002	-0.026	NA	
1	R1-5-1630t	1017923.000	1893350.000	GS	1017922.942	1893349.962	714.759	-0.058	-0.038	NA	
1	R1-5-1631t	1017939.000	1893350.000	GS	1017938.994	1893349.934	714.935	-0.006	-0.066	NA	
1	R1-5-1634t	1017906.000	1893350.000	GS	1017906.004	1893349.973	714.416	0.004	-0.027	NA	
1	R1-5-1635t	1017939.000	1893334.000	714.1	1017938.950	1893334.001	714.376	-0.050	0.001	0.276	
1	R1-5-1639t	1017786.000	1893611.000	GS	1017785.925	1893610.905	715.514	-0.075	-0.095	NA	
1	R1-5-1641t	1017840.000	1893366.000	713.9	1017840.120	1893365.889	713.843	0.120	-0.111	-0.057	
1	R1-5-1642t	1017823.000	1893366.000	GS	1017823.055	1893365.991	714.449	0.055	-0.009	NA	
1	R1-5-1643t	1017807.000	1893366.000	713.8	1017807.127	1893365.994	715.346	0.127	-0.006	1.546	
1	R1-5-1644t	1017791.000	1893366.000	713.5	1017790.906	1893366.093	714.784	-0.094	0.093	1.284	
1	R1-5-1647t	1017939.000	1893317.000	GS	1017939.008	1893316.959	714.299	0.008	-0.041	NA	
1	R1-5-1650t	1017953.000	1893301.000	GS	1017952.966	1893300.913	714.663	-0.034	-0.087	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Overburden Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1651t	1017969.000	1893301.000	GS	1017969.054	1893300.937	714.783	0.054	-0.063	NA	
1	R1-5-1654t	1017954.000	1893280.000	GS	1017954.046	1893279.949	714.641	0.046	-0.051	NA	
1	R1-5-1659t	1017970.000	1893263.000	GS	1017969.925	1893262.974	714.372	-0.075	-0.026	NA	
1	R1-5-1662t	1017890.000	1893350.000	GS	1017890.054	1893350.005	713.107	0.054	0.005	NA	
1	R1-5-1663t	1017873.000	1893350.000	GS	1017873.062	1893350.069	712.624	0.062	0.069	NA	
1	R1-5-1664t	1017890.000	1893334.000	712.1	1017889.967	1893333.964	712.155	-0.033	-0.036	0.055	
1	R1-5-1665t	1017902.000	1893334.000	711.1	1017901.957	1893333.973	711.361	-0.043	-0.027	0.261	
1	R1-5-1666t	1017856.000	1893340.000	GS	1017855.900	1893339.968	714.320	-0.100	-0.032	NA	
1	R1-5-1667t	1017840.000	1893339.000	GS	1017839.935	1893338.984	714.261	-0.065	-0.016	NA	
1	R1-5-1668t	1017823.000	1893339.000	GS	1017823.000	1893339.061	714.674	0.000	0.061	NA	
1	R1-5-1669t	1017807.000	1893338.000	714.5	1017806.953	1893337.873	715.408	-0.047	-0.127	0.908	
1	R1-5-1673t	1017867.000	1893320.000	GS	1017866.942	1893320.013	714.900	-0.058	0.013	NA	
1	R1-5-1674t	1017852.000	1893317.000	GS	1017852.019	1893316.983	715.349	0.019	-0.017	NA	
1	R1-5-1675t	1017835.000	1893313.000	715.3	1017834.953	1893312.940	715.906	-0.047	-0.060	0.606	
1	R1-5-1676t	1017818.000	1893310.000	715.6	1017817.999	1893309.963	715.957	-0.001	-0.037	0.357	
1	R1-5-1685t	1017890.000	1893299.000	GS	1017889.986	1893298.950	714.179	-0.014	-0.050	NA	
1	R1-5-1686t	1017883.000	1893295.000	GS	1017882.984	1893294.938	715.081	-0.016	-0.062	NA	
1	R1-5-1687t	1017867.000	1893290.000	GS	1017866.985	1893290.029	715.022	-0.015	0.029	NA	
1	R1-5-1689t	1017852.000	1893284.000	714.8	1017852.066	1893284.005	715.616	0.066	0.005	0.816	
1	R1-5-16t	1017865.000	1893601.000	GS	1017865.007	1893600.835	716.751	0.007	-0.165	NA	
1	R1-5-1721t	1017872.000	1893237.000	GS	1017872.034	1893237.023	715.032	0.034	0.023	NA	
1	R1-5-1722t	1017889.000	1893237.000	GS	1017889.014	1893236.931	714.833	0.014	-0.069	NA	
1	R1-5-1723t	1017905.000	1893237.000	GS	1017905.022	1893237.028	714.613	0.022	0.028	NA	
1	R1-5-1727t	1017873.000	1893250.000	GS	1017873.032	1893250.016	714.808	0.032	0.016	NA	
1	R1-5-1729t	1017873.000	1893262.000	714.5	1017873.033	1893261.976	714.802	0.033	-0.024	0.302	
1	R1-5-1730t	1017886.000	1893267.000	GS	1017886.019	1893266.974	714.756	0.019	-0.026	NA	
1	R1-5-1731t	1017899.000	1893257.000	GS	1017898.994	1893257.056	714.863	-0.006	0.056	NA	
1	R1-5-1752t	1017922.000	1893237.000	GS	1017922.035	1893236.845	712.537	0.035	-0.155	NA	
1	R1-5-1753t	1017938.000	1893237.000	GS	1017938.058	1893237.119	713.165	0.058	0.119	NA	
1	R1-5-1756t	1017908.000	1893195.000	713.5	1017907.983	1893194.925	713.884	-0.017	-0.075	0.384	
1	R1-5-1757t	1017918.000	1893198.000	713.6	1017917.931	1893198.021	713.611	-0.069	0.021	0.011	
1	R1-5-1758t	1017938.000	1893272.000	GS	1017937.898	1893272.025	712.030	-0.102	0.025	NA	
1	R1-5-1759t	1017925.000	1893287.000	GS	1017924.972	1893286.836	711.991	-0.028	-0.164	NA	
1	R1-5-1760t	1017919.000	1893301.000	GS	1017918.851	1893300.837	711.979	-0.149	-0.163	NA	
1	R1-5-1779t	1017972.000	1893223.000	GS	1017971.986	1893223.006	714.763	-0.014	0.006	NA	
1	R1-5-1780t	1017988.000	1893226.000	GS	1017988.081	1893225.989	714.071	0.081	-0.011	NA	
1	R1-5-1781t	1018004.000	1893229.000	716.1	1018004.027	1893228.997	716.548	0.027	-0.003	0.448	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

11/3/2005

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1783t	1018012.000	1893231.000	GS	1018012.030	1893231.103	718.054	0.030	0.103	NA	
1	R1-5-1784t	1017984.000	1893186.000	GS	1017984.002	1893185.991	712.836	0.002	-0.009	NA	
1	R1-5-1785t	1018004.000	1893195.000	GS	1018003.948	1893194.994	717.735	-0.052	-0.006	NA	
1	R1-5-1786t	1018000.000	1893183.000	713.5	1017999.966	1893182.984	713.963	-0.034	-0.016	0.463	
1	R1-5-1787t	1017908.000	1893317.000	GS	1017907.969	1893316.908	711.864	-0.031	-0.092	NA	
1	R1-5-17t	1017875.000	1893601.000	716.0	1017875.039	1893600.924	716.416	0.039	-0.076	0.416	
1	R1-5-1801t	1018017.000	1893170.000	716.0	1018016.984	1893170.005	716.455	-0.016	0.005	0.455	
1	R1-5-1803t	1018000.000	1893170.000	713.3	1018000.011	1893169.984	713.380	0.011	-0.016	0.080	
1	R1-5-1804t	1018025.000	1893145.000	716.8	1018025.019	1893145.106	716.882	0.019	0.106	0.082	
1	R1-5-1807t	1018017.000	1893145.000	GS	1018016.921	1893144.933	717.236	-0.079	-0.067	NA	
1	R1-5-1809t	1018005.000	1893140.000	GS	1018004.933	1893139.941	714.829	-0.067	-0.059	NA	
1	R1-5-1810t	1018001.000	1893118.000	GS	1018001.081	1893117.949	715.151	0.081	-0.051	NA	
1	R1-5-1811t	1018017.000	1893118.000	GS	1018016.937	1893117.966	717.353	-0.063	-0.034	NA	
1	R1-5-1830t	1018019.000	1893085.000	GS	1018018.979	1893085.002	717.497	-0.021	0.002	NA	
1	R1-5-1832t	1018035.000	1893085.000	716.2	1018035.038	1893085.011	716.503	0.038	0.011	0.303	
1	R1-5-1833t	1018025.000	1893118.000	717.0	1018025.056	1893117.960	717.494	0.056	-0.040	0.494	
1	R1-5-1834t	1017907.000	1893218.000	GS	1017907.025	1893218.014	714.910	0.025	0.014	NA	
1	R1-5-1835t	1017891.000	1893218.000	714.5	1017890.989	1893218.015	714.822	-0.011	0.015	0.322	
1	R1-5-1861t	1017891.000	1893202.000	714.0	1017890.881	1893201.916	714.361	-0.119	-0.084	0.361	
1	R1-5-1862t	1017907.000	1893202.000	713.7	1017906.998	1893202.065	714.121	-0.002	0.065	0.421	
1	R1-5-1863t	1017921.000	1893218.000	713.7	1017921.039	1893217.928	713.871	0.039	-0.072	0.171	
1	R1-5-1864t	1017903.000	1893189.000	713.6	1017902.875	1893189.084	713.937	-0.125	0.084	0.337	
1	R1-5-18656t	1018001.200	1892991.400	712.2	1018001.185	1892991.455	712.529	-0.015	0.055	0.329	
1	R1-5-18659t	1017996.500	1892983.400	711.7	1017996.524	1892983.463	711.706	0.024	0.063	0.006	
1	R1-5-1865t	1017895.000	1893170.000	GS	1017894.943	1893170.103	715.417	-0.057	0.103	NA	
1	R1-5-18660t	1017985.000	1892975.100	712.3	1017984.939	1892975.048	712.266	-0.061	-0.052	-0.034	
1	R1-5-18661t	1017983.600	1892995.800	712.9	1017983.642	1892995.748	713.027	0.042	-0.052	0.127	
1	R1-5-18662t	1017974.000	1892985.100	718.2	1017974.012	1892985.067	718.477	0.012	-0.033	0.277	
1	R1-5-1866t	1017888.000	1893160.000	GS	1017888.083	1893159.904	715.991	0.083	-0.096	NA	
1	R1-5-1867t	1017879.000	1893141.000	GS	1017879.130	1893140.911	716.861	0.130	-0.089	NA	
1	R1-5-1868t	1017877.000	1893126.000	GS	1017877.122	1893126.107	716.902	0.122	0.107	NA	
1	R1-5-1869t	1017884.000	1893090.000	GS	1017883.888	1893089.981	717.401	-0.112	-0.019	NA	
1	R1-5-1870t	1017876.000	1893110.000	GS	1017876.067	1893110.029	717.868	0.067	0.029	NA	
1	R1-5-1871t	1017889.000	1893076.000	GS	1017889.010	1893075.923	717.165	0.010	-0.077	NA	
1	R1-5-1873t	1017897.000	1893065.000	GS	1017896.984	1893064.883	717.286	-0.016	-0.117	NA	
1	R1-5-1890t	1017875.000	1893202.000	714.6	1017874.855	1893201.940	714.932	-0.145	-0.060	0.332	
1	R1-5-1898t	1017883.000	1893218.000	713.7	1017882.914	1893218.091	713.994	-0.086	0.091	0.294	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1899t	1017883.000	1893226.000	714.7	1017882.956	1893225.873	715.163	-0.044	-0.127	0.463	
1	R1-5-18t	1017885.000	1893601.000	715.8	1017884.875	1893601.004	716.621	-0.125	0.004	0.821	
1	R1-5-1902t	1017858.000	1893195.000	715.8	1017858.073	1893195.054	716.240	0.073	0.054	0.440	
1	R1-5-1903t	1017866.000	1893195.000	GS	1017866.068	1893195.043	716.483	0.068	0.043	NA	
1	R1-5-1904t	1017875.000	1893195.000	715.1	1017874.998	1893195.040	715.167	-0.002	0.040	0.067	
1	R1-5-1905t	1017891.000	1893189.000	713.0	1017890.879	1893188.971	713.385	-0.121	-0.029	0.385	
1	R1-5-1906t	1017875.000	1893189.000	713.2	1017875.169	1893188.929	713.675	0.169	-0.071	0.475	
1	R1-5-1923t	1017920.000	1893189.000	712.8	1017920.036	1893189.073	712.962	0.036	0.073	0.162	
1	R1-5-1924t	1017937.000	1893162.000	712.7	1017936.946	1893162.051	714.572	-0.054	0.051	1.872	Material taken as targeted due to backhoe rutting
1	R1-5-1925t	1017920.000	1893162.000	713.0	1017919.965	1893161.980	713.662	-0.035	-0.020	0.662	
1	R1-5-1926t	1017904.000	1893162.000	GS	1017904.000	1893162.002	713.651	0.000	0.002	NA	
1	R1-5-1927t	1017953.000	1893131.000	712.5	1017953.003	1893131.012	713.547	0.003	0.012	1.047	Material taken as targeted due to backhoe rutting
1	R1-5-1928t	1017937.000	1893131.000	712.7	1017936.867	1893131.020	712.796	-0.133	0.020	0.096	
1	R1-5-1929t	1017920.000	1893131.000	GS	1017920.057	1893130.960	713.455	0.057	-0.040	NA	
1	R1-5-1930t	1017903.000	1893131.000	712.4	1017903.021	1893130.943	713.500	0.021	-0.057	1.100	K-M Directed to take all material as targeted
1	R1-5-1931t	1017888.000	1893131.000	GS	1017888.003	1893130.916	714.213	0.003	-0.084	NA	
1	R1-5-1951t	1017920.000	1893098.000	712.5	1017919.935	1893098.028	713.591	-0.065	0.028	1.091	Material taken as targeted due to backhoe rutting
1	R1-5-1952t	1017904.000	1893098.000	GS	1017903.967	1893097.920	713.079	-0.033	-0.080	NA	
1	R1-5-1953t	1017888.000	1893098.000	GS	1017888.083	1893097.938	715.809	0.083	-0.062	NA	
1	R1-5-1954t	1017937.000	1893068.000	GS	1017936.921	1893067.976	713.370	-0.079	-0.024	NA	
1	R1-5-1955t	1018002.000	1893085.000	GS	1018002.121	1893085.095	714.478	0.121	0.095	NA	
1	R1-5-1956t	1018017.000	1893052.000	GS	1018016.995	1893051.973	714.818	-0.005	-0.027	NA	
1	R1-5-1957t	1018017.000	1893036.000	713.0	1018016.974	1893036.068	713.161	-0.026	0.068	0.161	
1	R1-5-1958t	1017937.000	1893098.000	GS	1017937.098	1893098.034	713.153	0.098	0.034	NA	
1	R1-5-1959t	1017937.000	1893104.000	GS	1017936.954	1893103.993	713.739	-0.046	-0.007	NA	
1	R1-5-1960t	1017954.000	1893068.000	712.3	1017953.986	1893067.970	713.644	-0.014	-0.030	1.344	K-M Directed to take all material as targeted
1	R1-5-1969t	1017920.000	1893068.000	GS	1017919.983	1893067.996	713.468	-0.017	-0.004	NA	
1	R1-5-1970t	1017933.000	1893040.000	GS	1017933.021	1893040.022	713.519	0.021	0.022	NA	
1	R1-5-1971t	1017972.000	1893068.000	GS	1017972.046	1893067.988	711.882	0.046	-0.012	NA	
1	R1-5-1972t	1017988.000	1893068.000	GS	1017988.108	1893068.066	711.791	0.108	0.066	NA	
1	R1-5-1973t	1017953.000	1893098.000	GS	1017953.018	1893097.976	712.729	0.018	-0.024	NA	
1	R1-5-1975t	1017970.000	1893098.000	GS	1017969.915	1893097.915	712.689	-0.085	-0.085	NA	
1	R1-5-1983t	1017891.000	1893181.000	713.1	1017891.047	1893180.946	713.594	0.047	-0.054	0.494	
1	R1-5-1984t	1017875.000	1893181.000	714.8	1017874.956	1893181.052	715.215	-0.044	0.052	0.415	
1	R1-5-1986t	1017866.000	1893181.000	715.4	1017865.945	1893181.042	715.626	-0.055	0.042	0.226	
1	R1-5-1989t	1017990.000	1893040.000	GS	1017989.993	1893040.088	711.743	-0.007	0.088	NA	
1	R1-5-1990t	1017996.000	1893026.000	GS	1017995.877	1893026.075	711.705	-0.123	0.075	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red



## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden  
 Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1991t	1017967.000	1893112.000	GS	1017967.074	1893112.028	712.593	0.074	0.028	NA	
1	R1-5-1992t	1017969.000	1893131.000	GS	1017969.119	1893130.982	712.255	0.119	-0.018	NA	
1	R1-5-1994t	1017953.000	1893162.000	GS	1017952.994	1893161.924	712.909	-0.006	-0.076	NA	
1	R1-5-1995t	1017969.000	1893162.000	710.8	1017969.034	1893162.016	711.792	0.034	0.016	0.992	K-M Directed to take all material as targeted
1	R1-5-1997t	1017953.000	1893189.000	GS	1017953.034	1893189.139	712.729	0.034	0.139	NA	
1	R1-5-1998t	1017974.000	1893040.000	GS	1017974.100	1893039.908	712.133	0.100	-0.092	NA	
1	R1-5-1999t	1017958.000	1893040.000	GS	1017958.058	1893039.974	712.355	0.058	-0.026	NA	
1	R1-5-19t	1017890.000	1893601.000	GS	1017889.943	1893601.001	716.526	-0.057	0.001	NA	
1	R1-5-2000t	1018000.000	1893052.000	711.5	1017999.943	1893052.014	711.752	-0.057	0.014	0.252	
1	R1-5-2001t	1017983.000	1893052.000	GS	1017983.087	1893051.964	711.868	0.087	-0.036	NA	
1	R1-5-2002t	1017968.000	1893052.000	GS	1017968.033	1893052.084	712.215	0.033	0.084	NA	
1	R1-5-2004t	1018000.000	1893012.000	710.5	1018000.023	1893012.070	711.848	0.023	0.070	1.348	K-M Directed to take all material as targeted
1	R1-5-2005t	1017984.000	1893012.000	710.1	1017984.011	1893012.085	712.586	0.011	0.085	2.486	K-M Directed to take all material as targeted
1	R1-5-2006t	1017973.000	1893083.000	GS	1017973.072	1893083.053	712.147	0.072	0.053	NA	
1	R1-5-2007t	1017952.000	1893012.000	713.4	1017951.925	1893011.970	713.530	-0.075	-0.030	0.130	
1	R1-5-2008t	1018026.000	1893232.000	716.9	1018025.970	1893232.040	717.255	-0.030	0.040	0.355	
1	R1-5-2021t	1018017.000	1893216.000	718.0	1018016.913	1893216.079	717.883	-0.087	0.079	-0.117	
1	R1-5-2022t	1017993.000	1893198.000	GS	1017992.982	1893197.973	713.533	-0.018	-0.027	NA	
1	R1-5-2023t	1018001.000	1893138.000	GS	1018000.981	1893137.995	713.393	-0.019	-0.005	NA	
1	R1-5-21t	1017871.000	1893577.000	GS	1017871.043	1893577.100	716.350	0.043	0.100	NA	
1	R1-5-22t	1017881.000	1893577.000	715.8	1017880.995	1893577.064	716.527	-0.005	0.064	0.727	
1	R1-5-23t	1017891.000	1893577.000	GS	1017890.986	1893576.917	716.613	-0.014	-0.083	NA	
1	R1-5-24t	1017901.000	1893577.000	GS	1017901.059	1893577.014	715.842	0.059	0.014	NA	
1	R1-5-2526t	1018021.000	1893004.000	712.4	1018021.083	1893003.966	712.502	0.083	-0.034	0.102	
1	R1-5-2527t	1018036.000	1893009.000	710.8	1018035.936	1893009.061	710.948	-0.064	0.061	0.148	
1	R1-5-25t	1017906.000	1893577.000	GS	1017905.964	1893576.930	716.126	-0.036	-0.070	NA	
1	R1-5-27t	1017836.000	1893554.000	713.5	1017836.044	1893554.005	713.891	0.044	0.005	0.391	
1	R1-5-28t	1017846.000	1893554.000	713.9	1017845.930	1893553.942	714.358	-0.070	-0.058	0.458	
1	R1-5-29t	1017856.000	1893554.000	715.4	1017856.071	1893553.988	715.721	0.071	-0.012	0.321	
1	R1-5-30t	1017866.000	1893554.000	714.1	1017866.070	1893554.024	716.354	0.070	0.024	2.254	
1	R1-5-31t	1017876.000	1893554.000	715.9	1017875.965	1893554.037	717.808	-0.035	0.037	1.908	
1	R1-5-32t	1017886.000	1893554.000	717.0	1017886.061	1893554.063	717.247	0.061	0.063	0.247	
1	R1-5-33t	1017896.000	1893554.000	GS	1017895.956	1893554.085	717.330	-0.044	0.085	NA	
1	R1-5-34t	1017906.000	1893554.000	GS	1017906.036	1893553.998	716.665	0.036	-0.002	NA	
1	R1-5-35t	1017916.000	1893554.000	GS	1017916.110	1893553.880	715.930	0.110	-0.120	NA	
1	R1-5-376t	1017817.000	1893554.000	712.3	1017816.916	1893554.003	713.907	-0.084	0.003	1.607	
1	R1-5-377t	1017804.000	1893554.000	GS	1017803.974	1893553.930	715.230	-0.026	-0.070	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden  
 Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-378t	1017825.000	1893530.000	GS	1017825.004	1893530.071	715.816	0.004	0.071	NA	
1	R1-5-379t	1017809.000	1893530.000	GS	1017809.008	1893530.049	715.572	0.008	0.049	NA	
1	R1-5-381t	1017830.000	1893506.000	GS	1017829.963	1893505.995	715.826	-0.037	-0.005	NA	
1	R1-5-382t	1017814.000	1893506.000	GS	1017813.979	1893506.034	715.975	-0.021	0.034	NA	
1	R1-5-383t	1017798.000	1893506.000	GS	1017798.023	1893506.031	715.943	0.023	0.031	NA	
1	R1-5-384t	1017903.000	1893506.000	GS	1017903.055	1893506.016	715.855	0.055	0.016	NA	
1	R1-5-38t	1017843.000	1893530.000	713.2	1017842.999	1893530.044	713.100	-0.001	0.044	-0.100	
1	R1-5-392t	1017908.000	1893488.000	GS	1017907.926	1893487.984	715.320	-0.074	-0.016	NA	
1	R1-5-394t	1017831.000	1893489.000	GS	1017831.011	1893489.018	714.750	0.011	0.018	NA	
1	R1-5-395t	1017814.000	1893489.000	714.5	1017813.903	1893488.997	714.817	-0.097	-0.003	0.317	
1	R1-5-396t	1017799.000	1893489.000	GS	1017799.012	1893488.945	714.145	0.012	-0.055	NA	
1	R1-5-397t	1017827.000	1893460.000	712.0	1017827.032	1893459.980	712.077	0.032	-0.020	0.077	
1	R1-5-39t	1017853.000	1893530.000	712.9	1017853.080	1893529.949	713.243	0.080	-0.051	0.343	
1	R1-5-40t	1017863.000	1893530.000	714.2	1017862.978	1893529.968	714.674	-0.022	-0.032	0.474	
1	R1-5-410t	1017892.000	1893383.000	GS	1017891.982	1893382.864	714.919	-0.018	-0.136	NA	
1	R1-5-411t	1017903.000	1893360.000	GS	1017903.076	1893360.063	714.977	0.076	0.063	NA	
1	R1-5-412t	1017921.000	1893332.000	GS	1017920.965	1893332.008	714.782	-0.035	0.008	NA	
1	R1-5-413t	1017936.000	1893341.000	714.2	1017936.022	1893340.967	714.531	0.022	-0.033	0.331	
1	R1-5-416t	1017936.000	1893302.000	713.9	1017935.896	1893302.044	714.884	-0.104	0.044	0.984	
1	R1-5-419t	1017795.000	1893460.000	GS	1017795.035	1893459.942	714.402	0.035	-0.058	NA	
1	R1-5-41t	1017873.000	1893530.000	716.3	1017872.941	1893530.000	716.642	-0.059	0.000	0.342	
1	R1-5-420t	1017779.000	1893460.000	GS	1017778.984	1893459.983	714.732	-0.016	-0.017	NA	
1	R1-5-422t	1017781.000	1893505.000	GS	1017780.973	1893504.919	715.083	-0.027	-0.081	NA	
1	R1-5-423t	1017783.000	1893489.000	GS	1017783.022	1893489.003	714.981	0.022	0.003	NA	
1	R1-5-425t	1017806.000	1893434.000	GS	1017805.867	1893433.925	713.130	-0.133	-0.075	NA	
1	R1-5-426t	1017790.000	1893435.000	GS	1017789.990	1893434.951	715.122	-0.010	-0.049	NA	
1	R1-5-427t	1017774.000	1893435.000	714.1	1017774.030	1893435.067	714.910	0.030	0.067	0.810	
1	R1-5-428t	1017810.000	1893411.000	GS	1017809.867	1893410.982	713.404	-0.133	-0.018	NA	
1	R1-5-429t	1017794.000	1893411.000	GS	1017794.016	1893411.050	714.759	0.016	0.050	NA	
1	R1-5-42t	1017883.000	1893530.000	717.9	1017883.040	1893530.005	717.931	0.040	0.005	0.031	
1	R1-5-430t	1017778.000	1893411.000	GS	1017778.007	1893411.034	715.001	0.007	0.034	NA	
1	R1-5-431t	1017842.000	1893384.000	GS	1017842.016	1893384.017	713.725	0.016	0.017	NA	
1	R1-5-432t	1017826.000	1893384.000	714.8	1017826.106	1893383.900	715.586	0.106	-0.100	0.786	
1	R1-5-433t	1017810.000	1893384.000	714.7	1017810.027	1893383.982	715.546	0.027	-0.018	0.846	
1	R1-5-434t	1017794.000	1893384.000	GS	1017794.069	1893383.915	714.402	0.069	-0.085	NA	
1	R1-5-435t	1017778.000	1893384.000	714.2	1017778.089	1893384.085	715.118	0.089	0.085	0.918	
1	R1-5-436t	1017768.000	1893384.000	715.1	1017767.936	1893383.951	715.939	-0.064	-0.049	0.839	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red



## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-43t	1017893.000	1893530.000	717.1	1017892.941	1893530.013	717.441	-0.059	0.013	0.341	
1	R1-5-440t	1017952.000	1893269.000	710.8	1017952.015	1893268.934	710.709	0.015	-0.066	-0.091	
1	R1-5-443t	1017967.000	1893239.000	GS	1017967.049	1893239.038	714.713	0.049	0.038	NA	
1	R1-5-444t	1017983.000	1893244.000	GS	1017983.060	1893243.971	714.381	0.060	-0.029	NA	
1	R1-5-446t	1017977.000	1893206.000	713.5	1017976.917	1893205.985	713.942	-0.083	-0.015	0.442	
1	R1-5-447t	1017992.000	1893211.000	GS	1017992.008	1893210.961	714.842	0.008	-0.039	NA	
1	R1-5-449t	1018017.000	1893182.000	GS	1018016.962	1893182.056	717.935	-0.038	0.056	NA	
1	R1-5-44t	1017903.000	1893530.000	717.1	1017902.953	1893529.937	716.973	-0.047	-0.063	-0.127	
1	R1-5-450t	1018015.000	1893161.000	GS	1018015.140	1893160.884	717.265	0.140	-0.116	NA	
1	R1-5-451t	1018001.000	1893158.000	713.2	1018001.078	1893157.971	713.442	0.078	-0.029	0.242	
1	R1-5-452t	1017991.000	1893176.000	712.5	1017991.062	1893175.986	712.839	0.062	-0.014	0.339	
1	R1-5-453t	1018008.000	1893180.000	715.9	1018008.022	1893180.048	716.652	0.022	0.048	0.752	
1	R1-5-454t	1018017.000	1893134.000	GS	1018016.975	1893133.933	717.646	-0.025	-0.067	NA	
1	R1-5-455t	1018018.000	1893104.000	714.6	1018018.012	1893104.000	714.677	0.012	0.000	0.077	
1	R1-5-456t	1018002.000	1893104.000	714.3	1018001.936	1893104.033	714.649	-0.064	0.033	0.349	
1	R1-5-457t	1018028.000	1893070.000	717.0	1018028.047	1893069.966	717.192	0.047	-0.034	0.192	
1	R1-5-458t	1018012.000	1893066.000	713.8	1018011.993	1893065.957	714.252	-0.007	-0.043	0.452	
1	R1-5-459t	1018035.000	1893034.000	717.4	1018034.974	1893033.934	717.698	-0.026	-0.066	0.298	
1	R1-5-45t	1017913.000	1893530.000	GS	1017912.906	1893530.091	715.574	-0.094	0.091	NA	
1	R1-5-48t	1017847.000	1893506.000	710.8	1017846.954	1893505.987	711.103	-0.046	-0.013	0.303	
1	R1-5-49t	1017857.000	1893506.000	715.1	1017856.992	1893505.999	713.786	-0.008	-0.001	-1.314	Point was surveyed at existing ground surface
1	R1-5-50t	1017867.000	1893506.000	715.5	1017866.938	1893506.084	717.462	-0.062	0.084	1.962	
1	R1-5-51t	1017877.000	1893506.000	715.3	1017877.012	1893506.011	715.714	0.012	0.011	0.414	
1	R1-5-528t	1017788.000	1893554.000	GS	1017787.919	1893554.039	715.131	-0.081	0.039	NA	
1	R1-5-529t	1017810.000	1893573.000	GS	1017809.962	1893573.026	709.252	-0.038	0.026	NA	
1	R1-5-52t	1017887.000	1893506.000	715.2	1017887.003	1893506.041	715.256	0.003	0.041	0.056	
1	R1-5-530t	1017796.000	1893578.000	GS	1017795.964	1893578.083	710.103	-0.036	0.083	NA	
1	R1-5-531t	1017821.000	1893568.000	711.5	1017821.001	1893567.978	710.325	0.001	-0.022	-1.175	Point was surveyed at existing ground surface
1	R1-5-534t	1017833.000	1893598.000	712.6	1017833.097	1893597.914	712.756	0.097	-0.086	0.156	
1	R1-5-537t	1017798.000	1893605.000	708.0	1017798.137	1893605.048	708.363	0.137	0.048	0.363	
1	R1-5-53t	1017851.000	1893488.000	711.6	1017850.987	1893488.020	711.809	-0.013	0.020	0.209	
1	R1-5-549t	1017882.000	1893344.000	GS	1017882.094	1893343.946	712.755	0.094	-0.054	NA	
1	R1-5-54t	1017875.000	1893488.000	GS	1017875.088	1893487.916	715.738	0.088	-0.084	NA	
1	R1-5-550t	1017901.000	1893358.000	GS	1017901.066	1893358.002	714.538	0.066	0.002	NA	
1	R1-5-55t	1017884.000	1893488.000	GS	1017883.997	1893487.940	715.890	-0.003	-0.060	NA	
1	R1-5-566t	1017880.000	1893373.000	GS	1017879.928	1893373.125	712.698	-0.072	0.125	NA	
1	R1-5-567t	1017912.000	1893330.000	GS	1017912.159	1893329.842	712.339	0.159	-0.158	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-568t	1017898.000	1893320.000	GS	1017897.954	1893320.043	712.597	-0.046	0.043	NA	
1	R1-5-569t	1017878.000	1893332.000	GS	1017877.944	1893332.082	712.784	-0.056	0.082	NA	
1	R1-5-56t	1017881.000	1893460.000	GS	1017881.051	1893460.052	715.599	0.051	0.052	NA	
1	R1-5-570t	1017923.000	1893313.000	GS	1017922.960	1893313.021	712.814	-0.040	0.021	NA	
1	R1-5-571t	1017909.000	1893304.000	GS	1017908.964	1893303.925	711.695	-0.036	-0.075	NA	
1	R1-5-574t	1017932.000	1893284.000	GS	1017932.025	1893284.117	712.036	0.025	0.117	NA	
1	R1-5-575t	1017915.000	1893273.000	GS	1017914.936	1893272.936	712.706	-0.064	-0.064	NA	
1	R1-5-576t	1017946.000	1893256.000	GS	1017946.073	1893255.983	711.734	0.073	-0.017	NA	
1	R1-5-579t	1017962.000	1893206.000	GS	1017961.982	1893205.913	711.593	-0.018	-0.087	NA	
1	R1-5-57t	1017860.000	1893460.000	GS	1017859.995	1893460.090	715.431	-0.005	0.090	NA	
1	R1-5-580t	1017946.000	1893203.000	GS	1017945.997	1893202.855	712.365	-0.003	-0.145	NA	
1	R1-5-581t	1017943.000	1893219.000	712.9	1017942.923	1893218.945	712.915	-0.077	-0.055	0.015	
1	R1-5-582t	1017930.000	1893200.000	GS	1017930.022	1893200.113	714.209	0.022	0.113	NA	
1	R1-5-584t	1017964.000	1893175.000	GS	1017963.992	1893174.952	711.901	-0.008	-0.048	NA	
1	R1-5-585t	1017983.000	1893147.000	GS	1017983.003	1893146.958	711.295	0.003	-0.042	NA	
1	R1-5-586t	1017966.000	1893147.000	GS	1017965.937	1893147.129	712.269	-0.063	0.129	NA	
1	R1-5-587t	1017998.000	1893147.000	GS	1017997.926	1893146.952	712.329	-0.074	-0.048	NA	
1	R1-5-589t	1017964.000	1893090.000	GS	1017964.029	1893089.993	712.556	0.029	-0.007	NA	
1	R1-5-590t	1017979.000	1893090.000	GS	1017979.052	1893089.914	711.884	0.052	-0.086	NA	
1	R1-5-591t	1017976.000	1893062.000	GS	1017976.016	1893061.908	711.724	0.016	-0.092	NA	
1	R1-5-592t	1017965.000	1893062.000	GS	1017965.063	1893061.899	712.344	0.063	-0.101	NA	
1	R1-5-593t	1017963.000	1893027.000	GS	1017962.964	1893027.080	712.308	-0.036	0.080	NA	
1	R1-5-594t	1017980.000	1893027.000	GS	1017979.899	1893026.916	712.023	-0.101	-0.084	NA	
1	R1-5-596t	1017944.000	1893045.000	712.7	1017944.049	1893045.038	713.658	0.049	0.038	0.958	K-M Directed to take all material as targeted
1	R1-5-59t	1017892.000	1893460.000	GS	1017892.073	1893459.933	715.313	0.073	-0.067	NA	
1	R1-5-61t	1017827.000	1893433.000	GS	1017827.053	1893432.952	713.286	0.053	-0.048	NA	
1	R1-5-63t	1017882.000	1893433.000	GS	1017882.095	1893433.001	714.827	0.095	0.001	NA	
1	R1-5-64t	1017853.000	1893433.000	GS	1017853.059	1893432.959	714.835	0.059	-0.041	NA	
1	R1-5-65t	1017836.000	1893433.000	GS	1017836.063	1893433.018	713.451	0.063	0.018	NA	
1	R1-5-66t	1017854.000	1893411.000	714.0	1017854.022	1893410.932	713.781	0.022	-0.068	-0.219	
1	R1-5-67t	1017862.000	1893397.000	712.7	1017862.039	1893396.989	712.817	0.039	-0.011	0.117	
1	R1-5-68t	1017871.000	1893411.000	714.6	1017870.935	1893410.989	714.702	-0.065	-0.011	0.102	
1	R1-5-70t	1017887.000	1893411.000	714.7	1017887.090	1893411.050	715.182	0.090	0.050	0.482	
1	R1-5-71t	1017903.000	1893411.000	GS	1017902.995	1893411.013	715.040	-0.005	0.013	NA	
1	R1-5-72t	1017908.000	1893385.000	GS	1017908.020	1893385.055	715.189	0.020	0.055	NA	
1	R1-5-73t	1017891.000	1893397.000	714.5	1017891.032	1893396.874	714.717	0.032	-0.126	0.217	
1	R1-5-746t	1017862.000	1893330.000	GS	1017862.017	1893329.992	714.322	0.017	-0.008	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-747t	1017846.000	1893329.000	GS	1017845.995	1893328.969	715.149	-0.005	-0.031	NA	
1	R1-5-748t	1017849.000	1893351.000	GS	1017848.958	1893350.971	713.731	-0.042	-0.029	NA	
1	R1-5-749t	1017832.000	1893351.000	GS	1017832.027	1893350.984	713.987	0.027	-0.016	NA	
1	R1-5-74t	1017902.000	1893214.000	713.8	1017901.882	1893213.888	714.153	-0.118	-0.112	0.353	
1	R1-5-750t	1017816.000	1893351.000	GS	1017815.989	1893350.996	714.222	-0.011	-0.004	NA	
1	R1-5-755t	1017888.000	1893317.000	GS	1017888.075	1893317.010	712.729	0.075	0.010	NA	
1	R1-5-756t	1017872.000	1893311.000	GS	1017872.061	1893310.980	714.596	0.061	-0.020	NA	
1	R1-5-757t	1017857.000	1893306.000	714.8	1017856.988	1893306.008	715.230	-0.012	0.008	0.430	
1	R1-5-75t	1017897.000	1893175.000	GS	1017896.944	1893175.028	715.029	-0.056	0.028	NA	
1	R1-5-762t	1017904.000	1893288.000	GS	1017904.045	1893287.964	712.731	0.045	-0.036	NA	
1	R1-5-763t	1017889.000	1893282.000	714.2	1017888.998	1893282.096	715.026	-0.002	0.096	0.826	
1	R1-5-764t	1017873.000	1893275.000	714.2	1017873.024	1893274.978	715.592	0.024	-0.022	1.392	
1	R1-5-76t	1017914.000	1893175.000	GS	1017914.031	1893174.867	713.722	0.031	-0.133	NA	
1	R1-5-770t	1017921.000	1893259.000	GS	1017920.940	1893258.937	712.530	-0.060	-0.063	NA	
1	R1-5-771t	1017907.000	1893251.000	GS	1017907.018	1893251.047	714.974	0.018	0.047	NA	
1	R1-5-772t	1017892.000	1893242.000	714.1	1017892.038	1893241.990	714.830	0.038	-0.010	0.730	
1	R1-5-775t	1017932.000	1893233.000	GS	1017931.884	1893233.089	712.873	-0.116	0.089	NA	
1	R1-5-776t	1017925.000	1893216.000	713.1	1017925.000	1893216.011	713.299	0.000	0.011	0.199	
1	R1-5-77t	1017900.000	1893147.000	GS	1017900.084	1893147.103	713.486	0.084	0.103	NA	
1	R1-5-78t	1017884.000	1893147.000	GS	1017884.018	1893147.000	715.807	0.018	0.000	NA	
1	R1-5-79t	1017917.000	1893147.000	712.8	1017917.028	1893146.996	713.656	0.028	-0.004	0.856	Material taken as targeted due to backhoe rutting
1	R1-5-80t	1017952.000	1893114.000	GS	1017952.098	1893114.114	713.548	0.098	0.114	NA	
1	R1-5-81t	1017935.000	1893114.000	712.9	1017934.990	1893114.046	714.004	-0.010	0.046	1.104	Material taken as targeted due to backhoe rutting
1	R1-5-82t	1017919.000	1893114.000	GS	1017918.990	1893114.051	713.245	-0.010	0.051	NA	
1	R1-5-83t	1017902.000	1893114.000	712.3	1017901.949	1893114.000	712.833	-0.051	0.000	0.533	K-M Directed to take all material as targeted
1	R1-5-84t	1017950.000	1893147.000	713.1	1017950.055	1893146.990	714.116	0.055	-0.010	1.016	Material taken as targeted due to backhoe rutting
1	R1-5-85t	1017933.000	1893147.000	712.9	1017933.001	1893146.939	713.572	0.001	-0.061	0.672	Material taken as targeted due to backhoe rutting
1	R1-5-86t	1017946.000	1893084.000	GS	1017945.997	1893083.901	712.831	-0.003	-0.099	NA	
1	R1-5-87t	1017928.000	1893084.000	712.8	1017927.979	1893084.032	713.769	-0.021	0.032	0.969	Material taken as targeted due to backhoe rutting
1	R1-5-88t	1017908.000	1893084.000	GS	1017908.083	1893084.034	713.185	0.083	0.034	NA	
1	R1-5-89t	1017947.000	1893175.000	GS	1017947.050	1893174.932	712.811	0.050	-0.068	NA	
1	R1-5-90t	1017930.000	1893175.000	712.7	1017930.040	1893175.014	713.091	0.040	0.014	0.391	
1	R1-5-91t	1017886.000	1893114.000	GS	1017886.027	1893114.052	714.107	0.027	0.052	NA	
1	R1-5-92t	1017882.000	1893102.000	GS	1017882.085	1893101.897	717.198	0.085	-0.103	NA	
1	R1-5-93t	1017894.000	1893075.000	GS	1017893.971	1893075.008	716.552	-0.029	0.008	NA	
1	R1-5-94t	1017950.000	1893052.000	GS	1017949.927	1893052.067	713.526	-0.073	0.067	NA	
1	R1-5-95t	1017933.000	1893052.000	GS	1017932.921	1893051.989	713.502	-0.079	-0.011	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-98t	1017935.000	1893027.000	711.8	1017934.900	1893027.009	712.969	-0.100	0.009	1.169	K-M Directed to take all material as targeted
1	R1-5-9t	1017820.000	1893625.000	714.7	1017819.885	1893624.895	714.311	-0.115	-0.105	-0.389	Point was surveyed at existing ground surface
1	R1-5-T1	1017795.500	1893640.500	713.2	1017795.532	1893640.497	714.268	0.032	-0.003	1.068	
1	R1-5-T10	1017772.600	1893619.000	GS	1017772.539	1893619.083	720.136	-0.061	0.083	NA	
1	R1-5-T100	1017910.000	1893474.000	GS	1017910.007	1893473.936	716.257	0.007	-0.064	NA	
1	R1-5-T101	1017809.000	1893467.000	710.9	1017809.023	1893467.040	711.025	0.023	0.040	0.125	
1	R1-5-T102	1017817.000	1893467.000	712.7	1017817.096	1893467.193	712.780	0.096	0.193	0.080	
1	R1-5-T103	1017771.500	1893460.000	GS	1017771.592	1893459.915	716.707	0.092	-0.085	NA	
1	R1-5-T104	1017803.000	1893460.000	GS	1017803.138	1893459.915	713.495	0.138	-0.085	NA	
1	R1-5-T105	1017819.000	1893460.000	712.0	1017819.118	1893460.001	711.979	0.118	0.001	-0.021	
1	R1-5-T106	1017834.500	1893460.000	712.0	1017834.452	1893459.993	712.082	-0.048	-0.007	0.082	
1	R1-5-T107	1017851.000	1893460.000	GS	1017851.041	1893460.032	713.444	0.041	0.032	NA	
1	R1-5-T108	1017897.500	1893460.000	GS	1017897.521	1893459.932	715.437	0.021	-0.068	NA	
1	R1-5-T109	1017833.500	1893453.500	GS	1017833.476	1893453.548	713.392	-0.024	0.048	NA	
1	R1-5-T11	1017781.500	1893619.000	GS	1017781.532	1893619.019	716.645	0.032	0.019	NA	
1	R1-5-T110	1017849.000	1893453.500	GS	1017848.955	1893453.398	714.880	-0.045	-0.102	NA	
1	R1-5-T111	1017770.000	1893447.000	715.7	1017769.937	1893446.942	716.734	-0.063	-0.058	1.034	
1	R1-5-T112	1017799.000	1893447.000	GS	1017799.116	1893446.891	713.533	0.116	-0.109	NA	
1	R1-5-T113	1017815.500	1893447.000	712.2	1017815.460	1893447.102	712.518	-0.040	0.102	0.318	
1	R1-5-T114	1017902.000	1893447.000	GS	1017902.067	1893446.934	715.749	0.067	-0.066	NA	
1	R1-5-T115	1017798.500	1893440.500	GS	1017798.535	1893440.470	713.976	0.035	-0.030	NA	
1	R1-5-T116	1017815.000	1893440.500	GS	1017815.012	1893440.518	713.144	0.012	0.018	NA	
1	R1-5-T117	1017769.000	1893434.000	715.5	1017769.092	1893433.956	716.222	0.092	-0.044	0.722	
1	R1-5-T118	1017890.000	1893433.000	GS	1017889.999	1893433.000	714.943	-0.001	0.000	NA	
1	R1-5-T119	1017806.500	1893428.000	GS	1017806.649	1893427.977	712.755	0.149	-0.023	NA	
1	R1-5-T12	1017835.000	1893618.500	GS	1017834.888	1893618.513	713.349	-0.112	0.013	NA	
1	R1-5-T120	1017825.000	1893427.500	GS	1017825.127	1893427.648	713.334	0.127	0.148	NA	
1	R1-5-T121	1017769.300	1893422.000	GS	1017769.387	1893421.984	716.303	0.087	-0.016	NA	
1	R1-5-T122	1017799.000	1893422.000	GS	1017798.988	1893422.048	714.466	-0.012	0.048	NA	
1	R1-5-T123	1017831.500	1893422.000	712.9	1017831.594	1893421.903	712.779	0.094	-0.097	-0.121	
1	R1-5-T124	1017897.500	1893422.000	GS	1017897.508	1893422.091	715.067	0.008	0.091	NA	
1	R1-5-T125	1017800.500	1893416.500	GS	1017800.496	1893416.618	715.050	-0.004	0.118	NA	
1	R1-5-T126	1017816.500	1893416.500	GS	1017816.550	1893416.451	712.073	0.050	-0.049	NA	
1	R1-5-T127	1017834.500	1893416.500	712.9	1017834.468	1893416.488	712.786	-0.032	-0.012	-0.114	
1	R1-5-T128	1017849.500	1893416.500	714.0	1017849.578	1893416.547	714.247	0.078	0.047	0.247	
1	R1-5-T129	1017904.500	1893416.500	GS	1017904.497	1893416.596	715.338	-0.003	0.096	NA	
1	R1-5-T13	1017790.000	1893618.000	GS	1017789.992	1893617.926	714.266	-0.008	-0.074	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T130	1017768.700	1893411.000	714.2	1017768.717	1893411.096	716.131	0.017	0.096	1.931	
1	R1-5-T131	1017819.500	1893411.000	GS	1017819.463	1893410.974	711.064	-0.037	-0.026	NA	
1	R1-5-T132	1017848.500	1893411.000	714.0	1017848.541	1893410.961	714.476	0.041	-0.039	0.476	
1	R1-5-T133	1017905.500	1893411.000	GS	1017905.502	1893410.922	715.381	0.002	-0.078	NA	
1	R1-5-T134	1017914.000	1893404.000	GS	1017914.102	1893403.950	715.881	0.102	-0.050	NA	
1	R1-5-T135	1017767.900	1893397.000	GS	1017767.944	1893397.015	716.820	0.044	0.015	NA	
1	R1-5-T136	1017821.000	1893397.000	GS	1017821.060	1893396.946	715.790	0.060	-0.054	NA	
1	R1-5-T137	1017854.000	1893397.000	712.7	1017854.088	1893397.026	712.963	0.088	0.026	0.263	
1	R1-5-T138	1017903.000	1893397.000	714.6	1017903.037	1893396.991	714.941	0.037	-0.009	0.341	
1	R1-5-T139	1017911.000	1893397.000	GS	1017911.024	1893397.078	715.155	0.024	0.078	NA	
1	R1-5-T14	1017818.000	1893618.000	714.7	1017817.902	1893618.044	713.246	-0.098	0.044	-1.454	Point was surveyed at existing ground surface
1	R1-5-T140	1017919.000	1893397.000	GS	1017918.934	1893397.140	716.044	-0.066	0.140	NA	
1	R1-5-T141	1017907.500	1893391.000	GS	1017907.570	1893391.199	714.897	0.070	0.199	NA	
1	R1-5-T142	1017911.500	1893391.000	GS	1017911.592	1893390.946	714.932	0.092	-0.054	NA	
1	R1-5-T143	1017827.500	1893390.500	714.8	1017827.620	1893390.407	715.503	0.120	-0.093	0.703	
1	R1-5-T144	1017844.000	1893390.500	GS	1017843.976	1893390.478	712.396	-0.024	-0.022	NA	
1	R1-5-T145	1017767.100	1893384.000	715.1	1017767.182	1893383.963	716.199	0.082	-0.037	1.099	
1	R1-5-T146	1017850.500	1893383.500	GS	1017850.613	1893383.544	712.736	0.113	0.044	NA	
1	R1-5-T147	1017867.500	1893383.000	GS	1017867.631	1893383.063	713.370	0.131	0.063	NA	
1	R1-5-T148	1017920.000	1893383.000	GS	1017920.094	1893383.052	715.000	0.094	0.052	NA	
1	R1-5-T149	1017890.500	1893374.500	GS	1017890.557	1893374.609	714.458	0.057	0.109	NA	
1	R1-5-T15	1017792.000	1893613.500	711.6	1017792.036	1893613.504	711.787	0.036	0.004	0.187	
1	R1-5-T150	1017899.000	1893374.500	714.4	1017899.022	1893374.531	714.580	0.022	0.031	0.180	
1	R1-5-T151	1017769.300	1893373.000	715.1	1017769.345	1893372.931	715.121	0.045	-0.069	0.021	
1	R1-5-T152	1017923.500	1893369.000	GS	1017923.467	1893368.998	714.840	-0.033	-0.002	NA	
1	R1-5-T153	1017781.000	1893366.000	713.5	1017780.949	1893366.085	714.637	-0.051	0.085	1.137	
1	R1-5-T154	1017848.000	1893366.000	713.9	1017847.935	1893365.980	714.260	-0.065	-0.020	0.360	
1	R1-5-T155	1017864.500	1893366.000	GS	1017864.394	1893366.089	713.185	-0.106	0.089	NA	
1	R1-5-T156	1017881.000	1893366.000	GS	1017880.927	1893366.059	712.573	-0.073	0.059	NA	
1	R1-5-T157	1017897.500	1893366.000	GS	1017897.595	1893366.107	715.024	0.095	0.107	NA	
1	R1-5-T158	1017931.000	1893366.000	GS	1017930.989	1893366.046	715.109	-0.011	0.046	NA	
1	R1-5-T159	1017787.000	1893358.500	713.5	1017786.978	1893358.456	714.982	-0.022	-0.044	1.482	
1	R1-5-T16	1017838.000	1893611.500	GS	1017837.972	1893611.348	713.789	-0.028	-0.152	NA	
1	R1-5-T160	1017803.000	1893358.500	713.8	1017803.000	1893358.481	714.664	0.000	-0.019	0.864	
1	R1-5-T161	1017852.500	1893358.500	GS	1017852.472	1893358.532	712.853	-0.028	0.032	NA	
1	R1-5-T162	1017881.000	1893358.000	GS	1017880.894	1893357.980	713.387	-0.106	-0.020	NA	
1	R1-5-T163	1017889.500	1893358.000	GS	1017889.551	1893357.952	712.764	0.051	-0.048	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T164	1017869.000	1893353.500	GS	1017868.955	1893353.424	713.044	-0.045	-0.076	NA	
1	R1-5-T165	1017807.500	1893351.000	GS	1017807.567	1893350.969	714.641	0.067	-0.031	NA	
1	R1-5-T166	1017943.500	1893350.500	GS	1017943.549	1893350.464	715.313	0.049	-0.036	NA	
1	R1-5-T167	1017860.500	1893348.500	GS	1017860.535	1893348.578	712.524	0.035	0.078	NA	
1	R1-5-T168	1017799.000	1893337.000	714.5	1017799.091	1893336.977	715.305	0.091	-0.023	0.805	
1	R1-5-T169	1017947.500	1893334.000	714.1	1017947.489	1893334.006	714.542	-0.011	0.006	0.442	
1	R1-5-T17	1017772.100	1893611.000	GS	1017772.211	1893610.961	720.486	0.111	-0.039	NA	
1	R1-5-T170	1017834.500	1893333.000	GS	1017834.511	1893332.969	715.322	0.011	-0.031	NA	
1	R1-5-T171	1017818.000	1893332.500	GS	1017818.037	1893332.521	715.094	0.037	0.021	NA	
1	R1-5-T172	1017801.500	1893331.000	714.5	1017801.382	1893331.069	715.817	-0.118	0.069	1.317	
1	R1-5-T173	1017947.500	1893325.500	GS	1017947.456	1893325.517	714.270	-0.044	0.017	NA	
1	R1-5-T174	1017840.500	1893321.000	715.3	1017840.554	1893320.975	715.688	0.054	-0.025	0.388	
1	R1-5-T175	1017815.500	1893318.000	715.6	1017815.518	1893318.001	715.810	0.018	0.001	0.210	
1	R1-5-T176	1017894.000	1893317.500	GS	1017894.001	1893317.485	712.594	0.001	-0.015	NA	
1	R1-5-T177	1017881.000	1893313.000	GS	1017881.105	1893312.993	712.423	0.105	-0.007	NA	
1	R1-5-T178	1017971.000	1893309.000	GS	1017970.989	1893308.999	715.641	-0.011	-0.001	NA	
1	R1-5-T179	1017846.500	1893308.500	GS	1017846.431	1893308.534	715.512	-0.069	0.034	NA	
1	R1-5-T18	1017811.000	1893611.000	711.9	1017811.001	1893611.013	711.664	0.001	0.013	-0.236	
1	R1-5-T180	1017810.000	1893308.000	715.6	1017810.050	1893307.950	716.353	0.050	-0.050	0.753	
1	R1-5-T181	1017943.500	1893306.000	713.9	1017943.365	1893306.016	714.673	-0.135	0.016	0.773	
1	R1-5-T182	1017830.500	1893303.500	715.3	1017830.463	1893303.431	716.210	-0.037	-0.069	0.910	
1	R1-5-T183	1017849.000	1893303.000	714.8	1017849.019	1893302.946	715.698	0.019	-0.054	0.898	
1	R1-5-T184	1017905.000	1893301.000	GS	1017905.162	1893300.940	711.903	0.162	-0.060	NA	
1	R1-5-T185	1017973.500	1893301.000	GS	1017973.395	1893301.009	715.434	-0.105	0.009	NA	
1	R1-5-T186	1017814.000	1893299.500	715.6	1017814.084	1893299.549	716.618	0.084	0.049	1.018	
1	R1-5-T187	1017895.500	1893298.500	GS	1017895.493	1893298.342	712.217	-0.007	-0.158	NA	
1	R1-5-T188	1017902.500	1893293.000	GS	1017902.543	1893293.013	712.623	0.043	0.013	NA	
1	R1-5-T189	1017843.500	1893281.000	714.8	1017843.505	1893280.986	715.859	0.005	-0.014	1.059	
1	R1-5-T19	1017861.000	1893611.000	714.9	1017861.000	1893610.976	715.392	0.000	-0.024	0.492	
1	R1-5-T190	1017962.000	1893280.000	GS	1017961.958	1893279.960	714.465	-0.042	-0.040	NA	
1	R1-5-T191	1017865.500	1893272.000	714.2	1017865.456	1893271.954	714.678	-0.044	-0.046	0.478	
1	R1-5-T192	1017970.000	1893271.500	GS	1017970.045	1893271.556	714.285	0.045	0.056	NA	
1	R1-5-T193	1017933.000	1893261.500	GS	1017932.914	1893261.622	712.029	-0.086	0.122	NA	
1	R1-5-T194	1017978.500	1893261.000	GS	1017978.461	1893260.979	714.220	-0.039	-0.021	NA	
1	R1-5-T195	1017865.000	1893256.000	GS	1017864.892	1893256.038	714.646	-0.108	0.038	NA	
1	R1-5-T196	1017937.000	1893253.500	GS	1017936.884	1893253.389	712.098	-0.116	-0.111	NA	
1	R1-5-T197	1017917.500	1893251.000	GS	1017917.530	1893251.020	713.824	0.030	0.020	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red



11/3/2005

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T198	1017865.000	1893250.000	GS	1017864.925	1893250.053	714.747	-0.075	0.053	NA	
1	R1-5-T199	1017950.500	1893246.500	GS	1017950.361	1893246.617	711.810	-0.139	0.117	NA	
1	R1-5-T2	1017801.500	1893640.500	713.2	1017801.431	1893640.413	714.732	-0.069	-0.087	1.532	K-M Directed to take all material as targeted
1	R1-5-T20	1017832.500	1893606.500	712.5	1017832.466	1893606.510	712.501	-0.034	0.010	0.001	
1	R1-5-T200	1017991.000	1893246.500	GS	1017991.015	1893246.572	715.578	0.015	0.072	NA	
1	R1-5-T201	1017930.000	1893242.000	GS	1017929.877	1893241.946	713.205	-0.123	-0.054	NA	
1	R1-5-T202	1017962.500	1893238.000	GS	1017962.474	1893237.937	712.402	-0.026	-0.063	NA	
1	R1-5-T203	1018009.900	1893237.500	GS	1018009.830	1893237.535	716.399	-0.070	0.035	NA	
1	R1-5-T204	1017946.500	1893237.000	GS	1017946.492	1893237.037	711.920	-0.008	0.037	NA	
1	R1-5-T205	1018026.100	1893236.200	716.9	1018026.144	1893236.221	717.210	0.044	0.021	0.310	
1	R1-5-T206	1018031.500	1893236.000	716.9	1018031.579	1893235.968	717.369	0.079	-0.032	0.469	
1	R1-5-T207	1017867.000	1893235.500	GS	1017867.104	1893235.453	715.285	0.104	-0.047	NA	
1	R1-5-T208	1017883.500	1893235.500	GS	1017883.521	1893235.482	715.019	0.021	-0.018	NA	
1	R1-5-T209	1018029.900	1893232.000	716.9	1018029.837	1893232.007	717.259	-0.063	0.007	0.359	
1	R1-5-T21	1017815.500	1893606.000	713.0	1017815.546	1893605.920	712.760	0.046	-0.080	-0.240	
1	R1-5-T210	1018015.700	1893231.200	GS	1018015.656	1893231.251	718.268	-0.044	0.051	NA	
1	R1-5-T211	1018018.000	1893230.600	GS	1018017.975	1893230.562	718.074	-0.025	-0.038	NA	
1	R1-5-T212	1017879.000	1893226.000	714.7	1017878.818	1893226.003	714.607	-0.182	0.003	-0.093	
1	R1-5-T213	1018017.700	1893224.400	718.0	1018017.742	1893224.459	718.097	0.042	0.059	0.097	
1	R1-5-T214	1017965.500	1893223.500	GS	1017965.591	1893223.564	711.884	0.091	0.064	NA	
1	R1-5-T215	1017999.500	1893222.000	716.1	1017999.598	1893222.028	716.501	0.098	0.028	0.401	
1	R1-5-T216	1017951.000	1893221.500	712.9	1017950.941	1893221.331	712.169	-0.059	-0.169	-0.731	Point was surveyed at existing ground surface
1	R1-5-T217	1017879.000	1893218.000	713.7	1017878.979	1893218.143	714.128	-0.021	0.143	0.428	
1	R1-5-T218	1018014.100	1893216.800	718.0	1018013.977	1893216.616	718.178	-0.123	-0.184	0.178	
1	R1-5-T219	1017960.500	1893215.000	GS	1017960.589	1893214.996	711.777	0.089	-0.004	NA	
1	R1-5-T22	1017865.500	1893606.000	GS	1017865.600	1893605.994	717.048	0.100	-0.006	NA	
1	R1-5-T220	1018001.500	1893214.500	GS	1018001.555	1893214.449	717.804	0.055	-0.051	NA	
1	R1-5-T221	1018021.200	1893213.400	718.0	1018021.112	1893213.461	718.425	-0.088	0.061	0.425	
1	R1-5-T222	1018009.100	1893211.400	716.7	1018009.070	1893211.382	717.119	-0.030	-0.018	0.419	
1	R1-5-T223	1017871.000	1893206.500	714.6	1017870.995	1893206.433	714.983	-0.005	-0.067	0.383	
1	R1-5-T224	1017875.000	1893206.500	714.6	1017874.834	1893206.503	714.617	-0.166	0.003	0.017	
1	R1-5-T225	1017853.500	1893198.500	715.8	1017853.396	1893198.415	716.262	-0.104	-0.085	0.462	
1	R1-5-T226	1017862.000	1893198.500	GS	1017862.040	1893198.455	716.665	0.040	-0.045	NA	
1	R1-5-T227	1018011.200	1893197.900	GS	1018011.114	1893197.854	718.077	-0.086	-0.046	NA	
1	R1-5-T228	1017973.000	1893197.500	713.5	1017972.879	1893197.442	711.684	-0.121	-0.058	-1.816	Point was surveyed at existing ground surface
1	R1-5-T229	1017853.500	1893195.000	715.8	1017853.486	1893195.018	715.759	-0.014	0.018	-0.041	
1	R1-5-T23	1017885.500	1893606.000	715.8	1017885.352	1893605.943	716.493	-0.148	-0.057	0.693	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T230	1017854.000	1893192.000	715.8	1017853.913	1893191.958	715.631	-0.087	-0.042	-0.169	
1	R1-5-T231	1017862.000	1893192.000	GS	1017862.016	1893192.076	716.838	0.016	0.076	NA	
1	R1-5-T232	1017961.000	1893189.000	GS	1017961.006	1893189.102	711.690	0.006	0.102	NA	
1	R1-5-T233	1017976.500	1893187.500	GS	1017976.589	1893187.638	711.456	0.089	0.138	NA	
1	R1-5-T234	1018021.200	1893183.000	GS	1018021.273	1893182.969	718.128	0.073	-0.031	NA	
1	R1-5-T235	1017862.000	1893181.000	715.4	1017861.977	1893181.064	715.802	-0.023	0.064	0.402	
1	R1-5-T236	1017868.000	1893176.500	715.4	1017868.047	1893176.552	715.863	0.047	0.052	0.463	
1	R1-5-T237	1017894.800	1893176.500	GS	1017894.842	1893176.492	715.284	0.042	-0.008	NA	
1	R1-5-T238	1017985.500	1893175.500	712.5	1017985.523	1893175.500	712.448	0.023	0.000	-0.052	
1	R1-5-T239	1017972.000	1893175.000	GS	1017971.913	1893175.146	711.433	-0.087	0.146	NA	
1	R1-5-T24	1017888.000	1893606.000	GS	1017888.005	1893605.959	716.700	0.005	-0.041	NA	
1	R1-5-T240	1018021.800	1893171.900	716.0	1018021.756	1893171.909	716.481	-0.044	0.009	0.481	
1	R1-5-T241	1017990.500	1893166.500	712.5	1017990.552	1893166.538	714.293	0.052	0.038	1.793	K-M Directed to take all material as targeted
1	R1-5-T242	1018021.500	1893163.700	GS	1018021.410	1893163.715	717.942	-0.090	0.015	NA	
1	R1-5-T243	1017981.500	1893161.000	710.8	1017981.430	1893161.032	712.109	-0.070	0.032	1.309	K-M Directed to take all material as targeted
1	R1-5-T244	1018028.800	1893145.000	716.8	1018028.777	1893144.976	717.216	-0.023	-0.024	0.416	
1	R1-5-T245	1017976.000	1893139.000	GS	1017976.058	1893138.992	711.936	0.058	-0.008	NA	
1	R1-5-T246	1017991.500	1893139.000	GS	1017991.480	1893139.032	710.973	-0.020	0.032	NA	
1	R1-5-T247	1017977.000	1893131.000	GS	1017976.988	1893130.882	711.877	-0.012	-0.118	NA	
1	R1-5-T248	1018029.000	1893118.000	717.0	1018029.038	1893118.095	717.349	0.038	0.095	0.349	
1	R1-5-T249	1017991.500	1893116.000	GS	1017991.470	1893115.957	712.023	-0.030	-0.043	NA	
1	R1-5-T25	1017771.500	1893601.000	710.7	1017771.514	1893601.030	719.854	0.014	0.030	9.154	K-M Directed to take all material as targeted
1	R1-5-T250	1017974.500	1893113.000	GS	1017974.543	1893113.074	712.070	0.043	0.074	NA	
1	R1-5-T251	1017875.200	1893107.800	GS	1017875.255	1893107.844	717.832	0.055	0.044	NA	
1	R1-5-T252	1018033.800	1893104.000	714.6	1018033.867	1893104.024	714.913	0.067	0.024	0.313	
1	R1-5-T253	1017994.000	1893101.000	714.3	1017993.889	1893101.031	714.170	-0.111	0.031	-0.130	
1	R1-5-T254	1017978.000	1893098.000	GS	1017978.121	1893097.941	711.960	0.121	-0.059	NA	
1	R1-5-T255	1018022.500	1893094.500	GS	1018022.525	1893094.413	717.743	0.025	-0.087	NA	
1	R1-5-T256	1018037.200	1893094.400	716.2	1018037.107	1893094.503	716.539	-0.093	0.103	0.339	
1	R1-5-T257	1017994.000	1893091.500	GS	1017993.919	1893091.387	714.073	-0.081	-0.113	NA	
1	R1-5-T258	1018023.000	1893085.000	GS	1018023.002	1893084.966	717.676	0.002	-0.034	NA	
1	R1-5-T259	1018031.000	1893085.000	716.2	1018031.038	1893084.989	716.600	0.038	-0.011	0.400	
1	R1-5-T26	1017892.500	1893601.000	GS	1017892.359	1893600.949	716.713	-0.141	-0.051	NA	
1	R1-5-T260	1018023.500	1893077.500	717.0	1018023.522	1893077.456	717.265	0.022	-0.044	0.265	
1	R1-5-T261	1018027.500	1893077.500	717.0	1018027.457	1893077.564	717.407	-0.043	0.064	0.407	
1	R1-5-T262	1017995.000	1893076.500	GS	1017994.945	1893076.364	712.518	-0.055	-0.136	NA	
1	R1-5-T263	1018033.800	1893076.300	717.0	1018033.711	1893076.275	717.378	-0.089	-0.025	0.378	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red



## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T264	1017897.000	1893071.000	GS	1017897.049	1893070.900	716.324	0.049	-0.100	NA	
1	R1-5-T265	1017993.000	1893068.000	GS	1017992.917	1893067.972	711.958	-0.083	-0.028	NA	
1	R1-5-T266	1017910.000	1893067.500	GS	1017910.078	1893067.527	713.141	0.078	0.027	NA	
1	R1-5-T267	1018006.000	1893067.000	713.8	1018005.944	1893067.045	713.683	-0.056	0.045	-0.117	
1	R1-5-T268	1017898.500	1893066.000	GS	1017898.438	1893066.066	716.623	-0.062	0.066	NA	
1	R1-5-T269	1017897.000	1893064.000	GS	1017897.090	1893063.936	716.934	0.090	-0.064	NA	
1	R1-5-T27	1017822.000	1893597.500	712.6	1017821.922	1893597.435	712.898	-0.078	-0.065	0.298	
1	R1-5-T270	1017892.400	1893063.800	GS	1017892.477	1893063.866	717.356	0.077	0.066	NA	
1	R1-5-T271	1017999.000	1893060.000	711.5	1017999.060	1893059.998	711.594	0.060	-0.002	0.094	
1	R1-5-T272	1017925.500	1893052.000	GS	1017925.520	1893051.898	713.144	0.020	-0.102	NA	
1	R1-5-T273	1018031.300	1893052.000	GS	1018031.318	1893051.971	717.561	0.018	-0.029	NA	
1	R1-5-T274	1017921.500	1893039.000	GS	1017921.431	1893038.949	714.500	-0.069	-0.051	NA	
1	R1-5-T275	1017918.200	1893029.300	711.8	1017918.215	1893029.400	711.926	0.015	0.100	0.126	
1	R1-5-T276	1017932.900	1893012.900	711.8	1017932.912	1893013.035	711.749	0.012	0.135	-0.051	
1	R1-5-T277	1018043.700	1893011.000	710.8	1018043.756	1893011.040	711.002	0.056	0.040	0.202	
1	R1-5-T278	1018014.200	1893009.600	712.4	1018013.134	1893013.059	712.775	-1.066	3.459	0.375	Excavated to culvert edge
1	R1-5-T279	1018002.000	1893001.800	712.2	1017997.102	1893003.701	712.967	-4.898	1.901	0.767	Excavated to culvert edge
1	R1-5-T28	1017801.000	1893597.000	711.8	1017800.974	1893596.892	711.358	-0.026	-0.108	-0.442	Point was surveyed at existing ground surface
1	R1-5-T280	1018020.200	1892999.300	712.4	1018021.738	1892999.756	712.428	1.538	0.456	0.028	Excavated to culvert edge
1	R1-5-T281	1018008.400	1892991.900	712.2	1018005.452	1892988.374	712.171	-2.948	-3.526	-0.029	Excavated to culvert edge
1	R1-5-T282	1017942.300	1892988.400	714.7	1017942.339	1892988.458	714.752	0.039	0.058	0.052	
1	R1-5-T283	1017960.000	1892987.000	715.4	1017959.950	1892987.040	715.600	-0.050	0.040	0.200	
1	R1-5-T284	1017970.000	1892981.000	718.2	1017970.046	1892980.986	718.178	0.046	-0.014	-0.022	
1	R1-5-T285	1017978.200	1892970.300	712.3	1017978.260	1892970.321	712.286	0.060	0.021	-0.014	
1	R1-5-T29	1017771.300	1893596.800	710.7	1017771.232	1893596.728	719.878	-0.068	-0.072	9.178	K-M Directed to take all material as targeted
1	R1-5-T3	1017821.500	1893640.500	GS	1017821.511	1893640.473	716.260	0.011	-0.027	NA	
1	R1-5-T30	1017781.200	1893596.000	710.7	1017781.229	1893596.034	711.113	0.029	0.034	0.413	
1	R1-5-T31	1017826.500	1893594.500	708.0	1017826.579	1893594.560	708.144	0.079	0.060	0.144	
1	R1-5-T32	1017841.500	1893594.500	710.3	1017841.428	1893594.552	710.699	-0.072	0.052	0.399	
1	R1-5-T33	1017851.500	1893594.500	GS	1017851.378	1893594.414	715.169	-0.122	-0.086	NA	
1	R1-5-T34	1017802.500	1893590.500	708.3	1017802.583	1893590.361	708.102	0.083	-0.139	-0.198	
1	R1-5-T35	1017807.500	1893590.500	707.2	1017807.544	1893590.506	708.475	0.044	0.006	1.275	K-M Directed to take all material as targeted
1	R1-5-T36	1017780.800	1893588.000	710.2	1017780.736	1893588.012	709.538	-0.064	0.012	-0.662	Point was surveyed at existing ground surface
1	R1-5-T37	1017813.000	1893588.000	707.2	1017813.114	1893588.066	708.821	0.114	0.066	1.621	K-M Directed to take all material as targeted
1	R1-5-T38	1017843.000	1893588.000	710.3	1017843.047	1893587.921	713.048	0.047	-0.079	2.748	K-M Directed to take all material as targeted
1	R1-5-T39	1017903.000	1893588.000	GS	1017902.949	1893588.147	716.878	-0.051	0.147	NA	
1	R1-5-T4	1017841.500	1893640.500	GS	1017841.557	1893640.506	716.100	0.057	0.006	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T40	1017819.500	1893582.500	708.1	1017819.483	1893582.577	709.004	-0.017	0.077	0.904	K-M Directed to take all material as targeted
1	R1-5-T41	1017829.500	1893582.500	708.0	1017829.503	1893582.472	708.965	0.003	-0.028	0.965	K-M Directed to take all material as targeted
1	R1-5-T42	1017839.500	1893582.500	710.3	1017839.405	1893582.485	711.342	-0.095	-0.015	1.042	K-M Directed to take all material as targeted
1	R1-5-T43	1017791.700	1893581.800	GS	1017791.607	1893581.805	711.839	-0.093	0.005	NA	
1	R1-5-T44	1017770.300	1893580.000	711.8	1017770.221	1893580.104	715.641	-0.079	0.104	3.841	K-M Directed to take all material as targeted
1	R1-5-T45	1017780.300	1893579.700	711.8	1017780.291	1893579.695	713.043	-0.009	-0.005	1.243	
1	R1-5-T46	1017770.200	1893577.000	711.8	1017770.289	1893577.003	714.526	0.089	0.003	2.726	K-M Directed to take all material as targeted
1	R1-5-T47	1017908.500	1893577.000	GS	1017908.485	1893577.032	716.416	-0.015	0.032	NA	
1	R1-5-T48	1017784.600	1893576.500	711.8	1017784.643	1893576.506	713.614	0.043	0.006	1.814	
1	R1-5-T49	1017855.500	1893576.500	GS	1017855.564	1893576.604	713.939	0.064	0.104	NA	
1	R1-5-T5	1017796.000	1893637.000	713.2	1017795.872	1893636.993	714.227	-0.128	-0.007	1.027	K-M Directed to take all material as targeted
1	R1-5-T50	1017769.900	1893571.500	716.3	1017769.907	1893571.485	716.473	0.007	-0.015	0.173	
1	R1-5-T51	1017813.000	1893569.500	GS	1017812.966	1893569.320	710.025	-0.034	-0.180	NA	
1	R1-5-T52	1017823.500	1893567.000	711.5	1017823.374	1893566.855	710.581	-0.126	-0.145	-0.919	Point was surveyed at existing ground surface
1	R1-5-T53	1017771.100	1893566.000	716.3	1017771.163	1893565.987	716.356	0.063	-0.013	0.056	
1	R1-5-T54	1017790.200	1893566.000	712.1	1017790.202	1893566.058	712.771	0.002	0.058	0.671	
1	R1-5-T55	1017851.000	1893566.000	GS	1017851.120	1893566.020	714.489	0.120	0.020	NA	
1	R1-5-T56	1017908.500	1893566.000	GS	1017908.374	1893565.970	716.016	-0.126	-0.030	NA	
1	R1-5-T57	1017800.700	1893565.300	708.9	1017800.628	1893565.243	712.488	-0.072	-0.057	3.588	
1	R1-5-T58	1017811.500	1893560.000	712.3	1017811.449	1893560.044	712.576	-0.051	0.044	0.276	
1	R1-5-T59	1017831.000	1893560.000	713.5	1017830.959	1893559.933	713.228	-0.041	-0.067	-0.272	Point was surveyed at existing ground surface
1	R1-5-T6	1017844.500	1893637.000	GS	1017844.406	1893637.024	716.292	-0.094	0.024	NA	
1	R1-5-T60	1017846.000	1893560.000	713.9	1017845.933	1893559.964	714.232	-0.067	-0.036	0.332	
1	R1-5-T61	1017792.000	1893559.900	GS	1017791.949	1893559.936	714.022	-0.051	0.036	NA	
1	R1-5-T62	1017798.600	1893559.600	GS	1017798.557	1893559.612	714.124	-0.043	0.012	NA	
1	R1-5-T63	1017773.600	1893554.000	GS	1017773.618	1893553.945	718.492	0.018	-0.055	NA	
1	R1-5-T64	1017918.500	1893554.000	GS	1017918.575	1893553.944	716.204	0.075	-0.056	NA	
1	R1-5-T65	1017776.200	1893542.000	715.4	1017776.191	1893542.107	715.676	-0.009	0.107	0.276	
1	R1-5-T66	1017923.500	1893542.000	GS	1017923.414	1893541.897	716.148	-0.086	-0.103	NA	
1	R1-5-T67	1017796.500	1893536.000	GS	1017796.435	1893535.991	715.403	-0.065	-0.009	NA	
1	R1-5-T68	1017775.500	1893530.000	715.0	1017775.533	1893529.912	715.413	0.033	-0.088	0.413	
1	R1-5-T69	1017785.500	1893530.000	715.0	1017785.491	1893530.005	715.264	-0.009	0.005	0.264	
1	R1-5-T7	1017803.000	1893631.000	713.2	1017803.038	1893631.080	714.557	0.038	0.080	1.357	
1	R1-5-T70	1017801.000	1893530.000	GS	1017800.904	1893530.019	715.696	-0.096	0.019	NA	
1	R1-5-T71	1017915.500	1893530.000	GS	1017915.564	1893529.935	715.042	0.064	-0.065	NA	
1	R1-5-T72	1017789.500	1893523.500	GS	1017789.538	1893523.351	715.676	0.038	-0.149	NA	
1	R1-5-T73	1017802.500	1893523.500	714.1	1017802.426	1893523.477	714.344	-0.074	-0.023	0.244	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

11/3/2005

Survey Instrument: Trimble 5800 / Trimble S6

Environmental Scientist: A. Ruta/J. Krane/D. Steman

Geologist: Dan Ryan

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-T74	1017854.500	1893523.500	712.9	1017854.470	1893523.452	713.342	-0.030	-0.048	0.442	
1	R1-5-T75	1017859.500	1893523.500	714.2	1017859.609	1893523.698	714.390	0.109	0.198	0.190	
1	R1-5-T76	1017774.700	1893517.000	714.8	1017774.753	1893517.091	715.264	0.053	0.091	0.464	
1	R1-5-T77	1017921.000	1893517.000	714.5	1017920.973	1893516.979	716.764	-0.027	-0.021	2.264	
1	R1-5-T78	1017851.500	1893511.500	710.8	1017851.522	1893511.434	711.038	0.022	-0.066	0.238	
1	R1-5-T79	1017861.500	1893511.500	715.1	1017861.527	1893511.502	715.317	0.027	0.002	0.217	
1	R1-5-T8	1017812.000	1893625.000	714.7	1017812.090	1893624.876	714.498	0.090	-0.124	-0.202	
1	R1-5-T80	1017915.000	1893506.000	GS	1017914.977	1893506.000	715.830	-0.023	0.000	NA	
1	R1-5-T81	1017774.000	1893505.400	GS	1017774.003	1893505.454	716.155	0.003	0.054	NA	
1	R1-5-T82	1017792.500	1893501.500	GS	1017792.501	1893501.410	715.416	0.001	-0.090	NA	
1	R1-5-T83	1017851.500	1893501.500	710.8	1017851.489	1893501.533	710.854	-0.011	0.033	0.054	
1	R1-5-T84	1017861.500	1893501.500	713.7	1017861.606	1893501.466	713.790	0.106	-0.034	0.090	
1	R1-5-T85	1017783.500	1893501.000	GS	1017783.483	1893500.939	714.882	-0.017	-0.061	NA	
1	R1-5-T86	1017773.600	1893497.000	GS	1017773.592	1893496.984	716.147	-0.008	-0.016	NA	
1	R1-5-T87	1017791.000	1893497.000	GS	1017791.002	1893497.011	714.980	0.002	0.011	NA	
1	R1-5-T88	1017911.000	1893497.000	GS	1017910.969	1893496.905	715.618	-0.031	-0.095	NA	
1	R1-5-T89	1017792.800	1893493.200	GS	1017792.870	1893493.149	714.328	0.070	-0.051	NA	
1	R1-5-T9	1017845.000	1893625.000	GS	1017844.981	1893625.045	715.769	-0.019	0.045	NA	
1	R1-5-T90	1017779.500	1893493.000	GS	1017779.444	1893493.014	715.361	-0.056	0.014	NA	
1	R1-5-T91	1017853.500	1893492.500	711.6	1017853.452	1893492.438	711.881	-0.048	-0.062	0.281	
1	R1-5-T92	1017858.500	1893492.500	711.6	1017858.525	1893492.516	711.865	0.025	0.016	0.265	
1	R1-5-T93	1017773.100	1893489.000	GS	1017773.104	1893488.938	717.317	0.004	-0.062	NA	
1	R1-5-T94	1017916.000	1893488.000	GS	1017915.934	1893488.050	716.739	-0.066	0.050	NA	
1	R1-5-T95	1017835.500	1893481.500	GS	1017835.481	1893481.570	713.274	-0.019	0.070	NA	
1	R1-5-T96	1017845.500	1893481.000	711.6	1017845.473	1893480.985	712.008	-0.027	-0.015	0.408	
1	R1-5-T97	1017766.000	1893474.000	GS	1017766.002	1893473.934	719.499	0.002	-0.066	NA	
1	R1-5-T98	1017831.500	1893474.000	712.7	1017831.559	1893474.000	712.867	0.059	0.000	0.167	
1	R1-5-T99	1017848.000	1893474.000	GS	1017847.980	1893474.115	713.202	-0.020	0.115	NA	
1	R1-5-V1t	1017899.100	1893273.800	GS	1017899.077	1893273.711	715.377	-0.023	-0.089	NA	
1	R1-5-V2t	1017960.600	1893251.900	GS	1017960.509	1893252.006	714.327	-0.091	0.106	NA	
1	R1-5-V3t	1018019.100	1893020.100	712.7	1018019.089	1893020.027	713.130	-0.011	-0.073	0.430	
1	R1-5-V4t	1017966.100	1893011.900	714.0	1017966.164	1893011.950	714.098	0.064	0.050	0.098	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

8/4/2008

Survey Instrument: Trimble S6

Environmental Scientist: Amy Ruta / Jerry Krane

Geologist: Dan Ryan

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-6

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-6-1725t	1017788.000	1893247.000	719.3	1017788.013	1893247.091	719.983	0.013	0.091	0.683	
1	R1-6-T1	1017788.500	1893252.500	719.3	1017788.461	1893252.430	719.223	-0.039	-0.070	-0.077	
1	R1-6-T2	1017781.500	1893249.500	719.3	1017781.694	1893249.486	720.132	0.194	-0.014	0.832	
1	R1-6-T3	1017795.500	1893248.500	719.3	1017795.470	1893248.399	718.325	-0.030	-0.101	-0.975	Point was surveyed at existing ground surface
1	R1-6-T4	1017792.500	1893245.500	719.3	1017792.521	1893245.447	718.763	0.021	-0.053	-0.537	Point was surveyed at existing ground surface
1	R1-6-T5	1017780.500	1893242.000	719.3	1017780.531	1893242.156	720.243	0.031	0.156	0.943	
1	R1-6-T6	1017789.000	1893242.000	719.3	1017788.976	1893242.167	718.590	-0.024	0.167	-0.710	Point was surveyed at existing ground surface

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

8/4/2008

Survey Instrument: Trimble S6

Environmental Scientist: Amy Ruta / Jerry Krane

Geologist: Dan Ryan

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-7

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-7-1704t	1017839.000	1893237.000	GS	1017839.088	1893236.996	716.173	0.088	-0.004	NA	
1	R1-7-T1	1017838.500	1893243.500	GS	1017838.539	1893243.527	715.998	0.039	0.027	NA	
1	R1-7-T2	1017847.000	1893243.500	GS	1017847.099	1893243.403	715.686	0.099	-0.097	NA	
1	R1-7-T3	1017831.000	1893237.000	GS	1017831.042	1893237.019	716.637	0.042	0.019	NA	
1	R1-7-T4	1017847.500	1893237.000	GS	1017847.467	1893236.964	715.903	-0.033	-0.036	NA	
1	R1-7-T5	1017831.500	1893231.500	GS	1017831.410	1893231.402	716.784	-0.090	-0.098	NA	
1	R1-7-T6	1017840.000	1893231.500	GS	1017839.904	1893231.548	716.395	-0.096	0.048	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

8/4/2008

Survey Instrument: Trimble S6

Environmental Scientist: Amy Ruta / Jerry Krane

Geologist: Dan Ryan

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 1 Section R1-8

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-8-1699t	1017763.000	1893237.000	GS	1017762.913	1893236.919	719.508	-0.087	-0.081	NA	
1	R1-8-T1	1017763.000	1893241.500	GS	1017763.100	1893241.412	719.464	0.100	-0.088	NA	
1	R1-8-T2	1017759.200	1893239.800	GS	1017759.297	1893239.742	720.246	0.097	-0.058	NA	
1	R1-8-T3	1017768.000	1893237.000	GS	1017768.018	1893236.959	720.132	0.018	-0.041	NA	
1	R1-8-T4	1017758.900	1893235.000	GS	1017758.945	1893234.973	720.511	0.045	-0.027	NA	
1	R1-8-T5	1017769.500	1893231.500	GS	1017769.473	1893231.598	720.493	-0.027	0.098	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Overburden  
 Reach 1 Section R1-9

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-9-1876t	1017900.000	1893036.000	716.4	1017900.056	1893035.965	717.269	0.056	-0.035	0.869	K-M Directed to take all material as targeted
1	R1-9-T1	1017901.000	1893041.500	716.4	1017900.985	1893041.427	717.978	-0.015	-0.073	1.578	K-M Directed to take all material as targeted
1	R1-9-T2	1017897.700	1893040.200	716.4	1017897.646	1893040.143	718.102	-0.054	-0.057	1.702	K-M Directed to take all material as targeted
1	R1-9-T3	1017905.000	1893037.000	716.4	1017905.040	1893037.006	716.445	0.040	0.006	0.045	
1	R1-9-T4	1017899.400	1893034.600	716.4	1017899.452	1893034.603	717.355	0.052	0.003	0.955	K-M Directed to take all material as targeted
1	R1-9-T5	1017902.800	1893033.300	716.4	1017902.801	1893033.332	717.041	0.001	0.032	0.641	K-M Directed to take all material as targeted

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

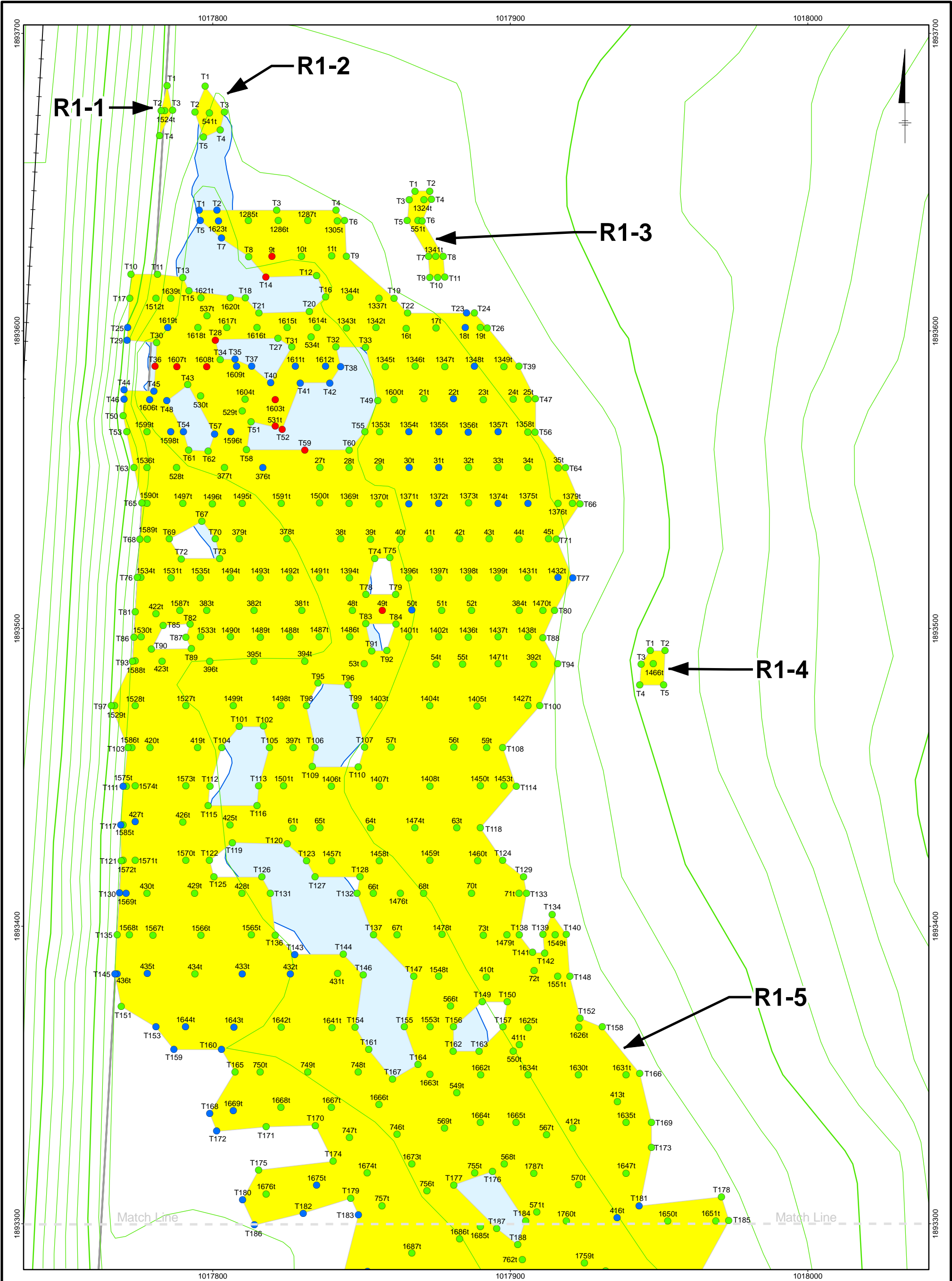
Δ Elevation < -0.25 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Overburden  
Reach 1 Section R1-10

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-10-101t	1017953.000	1892966.000	715.1	1017953.010	1892966.057	715.088	0.010	0.057	-0.012	
1	R1-10-T1	1017953.500	1892971.500	715.1	1017953.440	1892971.590	715.404	-0.060	0.090	0.304	
1	R1-10-T2	1017948.300	1892970.900	715.1	1017948.252	1892970.837	715.449	-0.048	-0.063	0.349	
1	R1-10-T3	1017956.000	1892968.500	715.1	1017955.995	1892968.438	715.293	-0.005	-0.062	0.193	
1	R1-10-T4	1017962.200	1892965.800	715.1	1017962.174	1892965.734	715.252	-0.026	-0.066	0.152	
1	R1-10-T5	1017947.000	1892965.500	715.1	1017946.928	1892965.521	715.477	-0.072	0.021	0.377	
1	R1-10-T6	1017955.000	1892961.500	715.1	1017955.005	1892961.437	715.379	0.005	-0.063	0.279	
1	R1-10-T7	1017946.500	1892960.000	715.1	1017946.508	1892959.972	715.081	0.008	-0.028	-0.019	

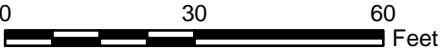
Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
Δ Elevation < -0.25 ft Red





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE



SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.5 Ft
- 0.5 to -0.25 Ft
- < -0.25 Ft

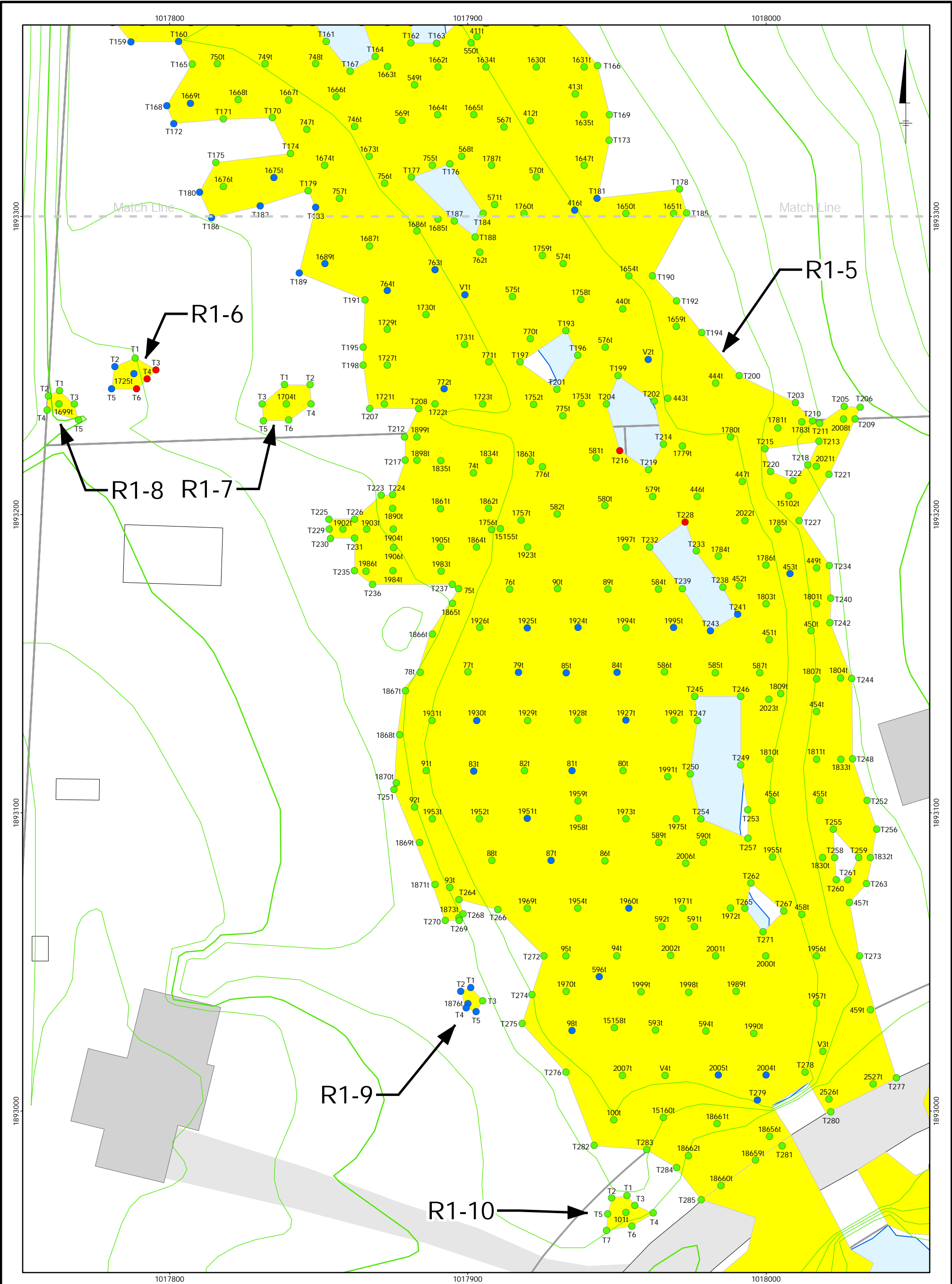
NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE
- DATUM: NAD 83
- UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
**REMEDATION TRACKING SYSTEM**  
**GPS VERIFICATION POINTS**  
**BOTTOM OF OVERBURDEN**  
**REACH 1**

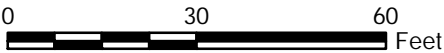
Remedial Management & Construction

FIGURE  
1



LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE



SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.5 Ft
- 0.5 to -0.25 Ft
- < -0.25 Ft

NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE

DATUM: NAD 83  
UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
REMEDATION TRACKING SYSTEM  
GPS VERIFICATION POINTS  
BOTTOM OF OVERBURDEN  
REACH 1



## **Appendix D**

Notification of Successful GPS  
Verification Survey for the Bottoms  
of Targeted Material, Reach 1 –  
All Sections (R1-1 through R1-10)

*Transmitted Via E-Mail*

**KC 056**

November 4, 2005

Mr. Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, Illinois 60185

Re: **Notification of Successful GPS Verification Survey  
For the Bottom of Targeted Material**  
Reach 1 – All Sections  
Remedial Action at the Kress Creek Project, West Chicago, IL  
BBLES Project #: 71014.003

Dear Mark:

In accordance with Section 2.1.5.2 "Notification" in the Reach 1 Final Design/Remedial Action (FD/RA) Work Plan for the above referenced project, BBL Environmental Services, Inc. (BBLES) is pleased to notify Kerr-McGee, the USEPA RPM/OSC and the Local Communities' Representative that a successful GPS Verification Survey was performed for the **Bottom of Targeted Material** for the following specified areas of excavation in Reach 1 at the Kress Creek Remedial Action Project in West Chicago, Illinois at the time and date noted below:

**1. GPS Verification Survey Package Issued on 09/01/05 with targeted material points achieved through that date (Issued previously and not included in this package)**

Excavation Locations: Reach 1, Sections R1-1, R1-2, R1-3, R1-4, R1-5 (partial through 09/01/05), R1-6, R1-7 and R1-8

Date of Verification: 09/01/2005

Time of Verification: 6:00 PM CST

**2. This GPS Verification Survey Package Issued on 11/04/05 includes those targeted material points achieved and documented in the above referenced package, and all remaining targeted material points to complete in its entirety Reach 1.**

Excavation Locations: Reach 1: Remainder of Section R1-5, R1-9 and R1-10.

Date of Verification: 11/04/05

Time of Verification: 8:00 AM CST

In accordance with Section 2.1.5.1 “Concurrent Verification” of the Reach 1 FD/RA Work Plan, BBLES sent an e-mail each Friday with a weekly schedule for the next week that listed the projected locations and dates where excavations and GPS verification surveys would be performed. BBLES sent those weekly schedule e-mails to Rebecca Frey and Scott Hansen of USEPA, Richard Allen, Kelly Grahn and Steve Shafer of IEMA/DNS and John Wills of CBB West providing them the required 24 hour notice that the excavations and GPS verification surveys for the bottom of targeted material would be completed during those weeks.

There are ten (10) attached Tables (Excel) prepared by ProSource Technologies, Inc. (ProSource) entitled “Kress Creek/ West Branch of DuPage River Verification Points, Bottom of Targeted Material” for the ten Reach 1 sections, and the tables list the design, actual and difference of the survey coordinates and elevations of the verification points located in the areas defined above under Excavation Locations. **It is important to note that all the data presented in the Reach 1 GPS Verification Survey targeted material package issued on 09/01/05 remains the same in these attached tables, except some of the comments have been changed to provide more consistency to the comments section of the report.**

The attached maps (pdf) prepared by ProSource divide Reach 1 into Figure 1 which shows the northern half of Reach 1 and Figure 2 which shows the southern half of Reach 1. The maps present the excavation locations identified above, and denote the location of each of the verification points that have been verified. The verification points listed in these attachments have been achieved and backfilling in the specified excavation locations has proceeded in accordance with the prior preliminary verbal approval of these points based on the field monitoring of the regulators’ representatives. Documents pertaining to this survey are available for inspection at the BBLES/Sevenson construction office at Kerr-McGee’s REF Facility.

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

*Michael F. Savage*

Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Michael Logan, Kerr-McGee  
Frank Schultz, Kerr-McGee  
Steve Wallace, Kerr-McGee  
Jeffery Williams, Kerr- McGee  
Rebecca Frey, USEPA  
Scott Hansen, USEPA  
Richard Allen, IEMA  
Kelly Grahn, IEMA  
Steve Shafer, REM/IEMA

Bot. of Target Material, R1 completed 11-04-05.doc  
K-M File # KC 4.1-6-1

Pat Kelsey, CBB West  
Kristine Meyer, CBB West  
Matt Scheffler, CBB West  
John Wills, CBB West  
Mark Gravelding, BBLES  
Joseph Molina, BBLES  
Heather Vandewalker, BBLES  
Jeff Walker, BBLES  
Michael Crystal, Severson  
Rick Elia, Jr., Severson  
Mark Schmitt, Severson  
Wade Carlson, ProSource  
Jerry Krane, ProSource

8/4/2008

Survey Instrument: Trimble S6  
Environmental Scientist: Amy Ruta  
Geologist: Dan Ryan

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 1 Section R1-1

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-1-1524b	1017784.000	1893674.000	718	1017784.000	1893674.012	717.138	0.000	0.012	-0.862	
1	R1-1-B1	1017784.800	1893682.400	718	1017784.713	1893682.394	717.560	-0.087	-0.006	-0.440	
1	R1-1-B2	1017782.700	1893674.000	718	1017782.693	1893674.086	717.514	-0.007	0.086	-0.486	
1	R1-1-B3	1017786.500	1893674.000	718	1017786.581	1893674.016	716.651	0.081	0.016	-1.349	
1	R1-1-B4	1017782.200	1893665.500	718	1017782.195	1893665.564	717.245	-0.005	0.064	-0.755	

Δ Elevation < -0.25 ft Blue

Δ Elevation -0.25 to 0.0 ft Green

Δ Elevation > 0.0 ft Red

Δ Easting/Northing < or = 0.2 ft Green

Δ Easting/Northing > 0.2 ft Blue

8/4/2008

Survey Instrument: Trimble S6  
Environmental Scientist: Amy Ruta  
Geologist: Dan Ryan

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 1 Section R1-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-2-541b	1017799.000	1893673.000	714.4	1017798.990	1893673.025	714.036	-0.010	0.025	-0.364	
1	R1-2-B1	1017797.500	1893682.000	714.4	1017797.490	1893682.077	714.278	-0.010	0.077	-0.122	
1	R1-2-B2	1017794.000	1893673.500	714.4	1017794.107	1893673.463	714.268	0.107	-0.037	-0.132	
1	R1-2-B3	1017804.000	1893673.500	714.4	1017804.011	1893673.444	714.275	0.011	-0.056	-0.125	
1	R1-2-B4	1017802.500	1893667.500	714.4	1017802.562	1893667.623	714.250	0.062	0.123	-0.150	
1	R1-2-B5	1017797.000	1893665.000	714.4	1017797.007	1893665.028	714.193	0.007	0.028	-0.207	

Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 1 Section R1-3

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-3-1324b	1017871.000	1893644.000	716	1017871.023	1893644.021	715.622	0.023	0.021	-0.378	
1	R1-3-1341b	1017875.000	1893625.000	715.6	1017875.075	1893625.008	715.186	0.075	0.008	-0.414	
1	R1-3-551b	1017869.000	1893637.000	715.7	1017868.952	1893637.036	715.234	-0.048	0.036	-0.466	
1	R1-3-B1	1017868.000	1893647.000	716	1017868.044	1893647.065	715.863	0.044	0.065	-0.137	
1	R1-3-B10	1017875.500	1893618.000	715.6	1017875.443	1893618.085	715.532	-0.057	0.085	-0.068	
1	R1-3-B11	1017878.000	1893618.000	715.6	1017877.998	1893618.015	715.533	-0.002	0.015	-0.067	
1	R1-3-B2	1017873.000	1893647.000	716	1017872.946	1893647.025	715.947	-0.054	0.025	-0.053	
1	R1-3-B3	1017866.000	1893644.000	716	1017866.012	1893643.928	715.503	0.012	-0.072	-0.497	
1	R1-3-B4	1017873.500	1893644.000	716	1017873.378	1893643.967	715.774	-0.122	-0.033	-0.226	
1	R1-3-B5	1017865.500	1893637.000	715.7	1017865.570	1893636.959	715.556	0.070	-0.041	-0.144	
1	R1-3-B6	1017870.500	1893637.000	715.7	1017870.456	1893637.006	715.266	-0.044	0.006	-0.434	
1	R1-3-B7	1017872.500	1893625.000	715.6	1017872.529	1893624.935	715.226	0.029	-0.065	-0.374	
1	R1-3-B8	1017877.500	1893625.000	715.6	1017877.426	1893625.023	715.194	-0.074	0.023	-0.406	
1	R1-3-B9	1017873.000	1893618.000	715.6	1017872.906	1893618.046	715.317	-0.094	0.046	-0.283	

Δ Elevation < -0.25 ft Blue  
 Δ Elevation -0.25 to 0.0 ft Green  
 Δ Elevation > 0.0 ft Red

Δ Easting/Northing < or = 0.2 ft Green  
 Δ Easting/Northing > 0.2 ft Blue

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 1 Section R1-4

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-4-1466b	1017948.000	1893488.000	720.2	1017947.925	1893488.059	720.053	-0.075	0.059	-0.147	
1	R1-4-B1	1017947.000	1893492.500	720.2	1017946.978	1893492.429	720.012	-0.022	-0.071	-0.188	
1	R1-4-B2	1017952.000	1893492.500	720.2	1017951.993	1893492.412	720.125	-0.007	-0.088	-0.075	
1	R1-4-B3	1017944.000	1893488.000	720.2	1017943.999	1893488.062	720.182	-0.001	0.062	-0.018	
1	R1-4-B4	1017943.500	1893481.000	720.2	1017943.564	1893481.139	720.049	0.064	0.139	-0.151	
1	R1-4-B5	1017951.500	1893481.000	720.2	1017951.488	1893481.054	720.137	-0.012	0.054	-0.063	

Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-100b	1017949.000	1892997.000	712.7	1017949.052	1892997.084	712.475	0.052	0.084	-0.225	
1	R1-5-10b	1017830.000	1893625.000	713.7	1017830.108	1893625.042	713.482	0.108	0.042	-0.218	
1	R1-5-11b	1017840.000	1893625.000	714.4	1017839.927	1893625.015	714.313	-0.073	0.015	-0.087	
1	R1-5-1285b	1017812.000	1893637.000	715.2	1017812.011	1893637.068	715.047	0.011	0.068	-0.153	
1	R1-5-1286b	1017822.000	1893637.000	715.2	1017821.926	1893637.066	714.975	-0.074	0.066	-0.225	
1	R1-5-1287b	1017832.000	1893637.000	715.6	1017831.987	1893636.968	715.537	-0.013	-0.032	-0.063	
1	R1-5-1305b	1017842.000	1893637.000	715.6	1017842.024	1893636.944	715.498	0.024	-0.056	-0.102	
1	R1-5-1337b	1017856.000	1893611.000	713.4	1017856.009	1893610.906	713.218	0.009	-0.094	-0.182	
1	R1-5-1342b	1017855.000	1893601.000	710.4	1017854.997	1893601.052	710.373	-0.003	0.052	-0.027	
1	R1-5-1343b	1017845.000	1893601.000	709.6	1017844.975	1893601.123	709.596	-0.025	0.123	-0.004	
1	R1-5-1344b	1017846.000	1893611.000	711.4	1017845.994	1893611.039	711.350	-0.006	0.039	-0.050	
1	R1-5-1345b	1017858.000	1893588.000	712.2	1017857.892	1893588.076	712.147	-0.108	0.076	-0.053	
1	R1-5-1346b	1017868.000	1893588.000	711.1	1017868.006	1893587.954	711.092	0.006	-0.046	-0.008	
1	R1-5-1347b	1017878.000	1893588.000	710.7	1017877.970	1893587.944	710.452	-0.030	-0.056	-0.248	
1	R1-5-1348b	1017888.000	1893588.000	712.7	1017888.144	1893588.021	712.513	0.144	0.021	-0.187	
1	R1-5-1349b	1017898.000	1893588.000	715.2	1017898.011	1893588.073	714.563	0.011	0.073	-0.637	
1	R1-5-1353b	1017856.000	1893566.000	711.9	1017856.022	1893566.014	711.678	0.022	0.014	-0.222	
1	R1-5-1354b	1017866.000	1893566.000	714.6	1017866.068	1893565.932	714.346	0.068	-0.068	-0.254	
1	R1-5-1355b	1017876.000	1893566.000	710.9	1017876.073	1893566.020	710.811	0.073	0.020	-0.089	
1	R1-5-1356b	1017886.000	1893566.000	710.9	1017885.961	1893566.035	710.635	-0.039	0.035	-0.265	
1	R1-5-1357b	1017896.000	1893566.000	712.5	1017896.037	1893565.978	712.159	0.037	-0.022	-0.341	
1	R1-5-1358b	1017906.000	1893566.000	714.3	1017906.017	1893565.958	714.150	0.017	-0.042	-0.150	
1	R1-5-1369b	1017846.000	1893542.000	711.5	1017845.981	1893541.953	711.414	-0.019	-0.047	-0.086	
1	R1-5-1370b	1017856.000	1893542.000	711.6	1017856.011	1893542.025	711.559	0.011	0.025	-0.041	
1	R1-5-1371b	1017866.000	1893542.000	711.6	1017865.967	1893541.995	711.597	-0.033	-0.005	-0.003	
1	R1-5-1372b	1017876.000	1893542.000	712.8	1017875.987	1893541.948	712.213	-0.013	-0.052	-0.587	
1	R1-5-1373b	1017886.000	1893542.000	711.4	1017886.039	1893542.036	711.139	0.039	0.036	-0.261	
1	R1-5-1374b	1017896.000	1893542.000	711.2	1017895.980	1893541.973	710.982	-0.020	-0.027	-0.218	
1	R1-5-1375b	1017906.000	1893542.000	712.2	1017906.054	1893542.007	712.032	0.054	0.007	-0.168	
1	R1-5-1376b	1017916.000	1893542.000	713.8	1017915.949	1893541.977	713.759	-0.051	-0.023	-0.041	
1	R1-5-1379b	1017921.000	1893542.000	714.6	1017920.968	1893541.965	714.249	-0.032	-0.035	-0.351	
1	R1-5-1394b	1017846.000	1893517.000	709.8	1017845.974	1893517.112	709.775	-0.026	0.112	-0.025	
1	R1-5-1396b	1017866.000	1893517.000	711.7	1017866.011	1893516.979	711.283	0.011	-0.021	-0.417	
1	R1-5-1397b	1017876.000	1893517.000	712.2	1017875.967	1893517.094	712.090	-0.033	0.094	-0.110	
1	R1-5-1398b	1017886.000	1893517.000	712	1017885.979	1893516.947	711.888	-0.021	-0.053	-0.112	
1	R1-5-1399b	1017896.000	1893517.000	711.8	1017895.993	1893516.991	711.523	-0.007	-0.009	-0.277	
1	R1-5-1401b	1017866.000	1893497.000	710.7	1017865.980	1893496.951	710.676	-0.020	-0.049	-0.024	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1402b	1017876.000	1893497.000	710.9	1017875.988	1893497.040	710.730	-0.012	0.040	-0.170	
1	R1-5-1403b	1017856.000	1893474.000	712	1017856.068	1893474.023	711.807	0.068	0.023	-0.193	
1	R1-5-1404b	1017873.000	1893474.000	714.1	1017873.006	1893474.031	713.867	0.006	0.031	-0.233	
1	R1-5-1405b	1017889.000	1893474.000	713.7	1017888.999	1893474.000	713.654	-0.001	0.000	-0.046	
1	R1-5-1406b	1017840.000	1893447.000	710.2	1017839.993	1893446.922	710.126	-0.007	-0.078	-0.074	
1	R1-5-1407b	1017856.000	1893447.000	712.8	1017856.033	1893447.017	712.736	0.033	0.017	-0.064	
1	R1-5-1408b	1017873.000	1893447.000	713.5	1017873.018	1893446.954	713.418	0.018	-0.046	-0.082	
1	R1-5-1427b	1017906.000	1893474.000	714.4	1017905.985	1893473.975	714.138	-0.015	-0.025	-0.262	
1	R1-5-1431b	1017906.000	1893517.000	713.8	1017905.932	1893516.956	713.671	-0.068	-0.044	-0.129	
1	R1-5-1432b	1017916.000	1893517.000	713	1017915.929	1893516.961	712.659	-0.071	-0.039	-0.341	
1	R1-5-1436b	1017886.000	1893497.000	711.9	1017886.041	1893496.966	711.694	0.041	-0.034	-0.206	
1	R1-5-1437b	1017896.000	1893497.000	713.1	1017896.032	1893496.957	712.771	0.032	-0.043	-0.329	
1	R1-5-1438b	1017906.000	1893497.000	712.9	1017906.035	1893496.980	712.659	0.035	-0.020	-0.241	
1	R1-5-1450b	1017890.000	1893447.000	713.1	1017890.019	1893446.990	712.921	0.019	-0.010	-0.179	
1	R1-5-1453b	1017898.000	1893447.000	713.6	1017898.022	1893446.987	713.362	0.022	-0.013	-0.238	
1	R1-5-1457b	1017840.000	1893422.000	710.4	1017839.929	1893422.091	710.079	-0.071	0.091	-0.321	
1	R1-5-1458b	1017856.000	1893422.000	711.5	1017856.020	1893421.907	711.477	0.020	-0.093	-0.023	
1	R1-5-1459b	1017873.000	1893422.000	711.3	1017872.994	1893422.002	711.292	-0.006	0.002	-0.008	
1	R1-5-1460b	1017889.000	1893422.000	712.7	1017888.982	1893422.036	712.599	-0.018	0.036	-0.101	
1	R1-5-1470b	1017911.000	1893506.000	713.2	1017911.003	1893506.057	712.959	0.003	0.057	-0.241	
1	R1-5-1471b	1017896.000	1893488.000	713.8	1017895.994	1893488.028	713.709	-0.006	0.028	-0.091	
1	R1-5-1474b	1017868.000	1893433.000	712.6	1017867.988	1893432.969	712.362	-0.012	-0.031	-0.238	
1	R1-5-1476b	1017863.000	1893411.000	710.5	1017863.062	1893411.001	710.456	0.062	0.001	-0.044	
1	R1-5-1478b	1017877.000	1893397.000	711.6	1017877.025	1893396.972	711.409	0.025	-0.028	-0.191	
1	R1-5-1479b	1017899.000	1893397.000	713.6	1017898.974	1893397.038	713.112	-0.026	0.038	-0.488	
1	R1-5-1486b	1017846.000	1893497.000	710.9	1017846.042	1893497.048	710.709	0.042	0.048	-0.191	
1	R1-5-1487b	1017836.000	1893497.000	712.2	1017836.005	1893497.040	712.075	0.005	0.040	-0.125	
1	R1-5-1488b	1017826.000	1893497.000	712.2	1017826.044	1893496.976	712.082	0.044	-0.024	-0.118	
1	R1-5-1489b	1017816.000	1893497.000	713	1017815.892	1893497.129	712.097	-0.108	0.129	-0.903	
1	R1-5-1490b	1017806.000	1893497.000	713.1	1017806.039	1893497.075	712.849	0.039	0.075	-0.251	
1	R1-5-1491b	1017836.000	1893517.000	711.4	1017835.949	1893517.078	711.162	-0.051	0.078	-0.238	
1	R1-5-1492b	1017826.000	1893517.000	712.7	1017825.947	1893517.007	712.501	-0.053	0.007	-0.199	
1	R1-5-1493b	1017816.000	1893517.000	714	1017815.970	1893516.968	713.607	-0.030	-0.032	-0.393	
1	R1-5-1494b	1017806.000	1893517.000	712.1	1017806.092	1893516.943	711.569	0.092	-0.057	-0.531	
1	R1-5-1495b	1017810.000	1893542.000	713	1017809.998	1893542.026	712.957	-0.002	0.026	-0.043	
1	R1-5-1496b	1017800.000	1893542.000	712.7	1017799.942	1893542.038	712.607	-0.058	0.038	-0.093	
1	R1-5-1497b	1017790.000	1893542.000	712.7	1017789.998	1893542.043	712.691	-0.002	0.043	-0.009	

Δ Elevation < -0.25 ft Blue  
 Δ Elevation -0.25 to 0.0 ft Green  
 Δ Elevation > 0.0 ft Red  
 Δ Easting/Northing < or = 0.2 ft Green  
 Δ Easting/Northing > 0.2 ft Blue

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1498b	1017823.000	1893474.000	711.2	1017822.985	1893473.984	711.041	-0.015	-0.016	-0.159	
1	R1-5-1499b	1017807.000	1893474.000	709.9	1017807.126	1893473.946	709.895	0.126	-0.054	-0.005	
1	R1-5-1500b	1017836.000	1893542.000	709.8	1017835.985	1893542.043	709.778	-0.015	0.043	-0.022	
1	R1-5-1501b	1017824.000	1893447.000	711.2	1017823.908	1893447.046	711.019	-0.092	0.046	-0.181	
1	R1-5-15102b	1018007.600	1893206.300	714.2	1018007.509	1893206.268	714.017	-0.091	-0.032	-0.183	
1	R1-5-1512b	1017781.000	1893611.000	713.2	1017781.146	1893611.022	713.184	0.146	0.022	-0.016	
1	R1-5-15155b	1017911.000	1893195.100	711.5	1017911.071	1893195.119	711.454	0.071	0.019	-0.046	
1	R1-5-15158b	1017949.100	1893027.800	710.9	1017949.067	1893027.925	710.740	-0.033	0.125	-0.160	
1	R1-5-15160b	1017965.600	1892997.800	711.4	1017965.526	1892997.858	711.367	-0.074	0.058	-0.033	
1	R1-5-1527b	1017791.000	1893474.000	712.9	1017791.046	1893474.072	712.827	0.046	0.072	-0.073	
1	R1-5-1528b	1017774.000	1893474.000	714.8	1017774.008	1893474.003	714.459	0.008	0.003	-0.341	
1	R1-5-1529b	1017767.000	1893474.000	717.8	1017766.936	1893474.087	716.715	-0.064	0.087	-1.085	
1	R1-5-1530b	1017776.000	1893497.000	713.7	1017775.885	1893497.045	713.676	-0.115	0.045	-0.024	
1	R1-5-1531b	1017786.000	1893517.000	712.9	1017785.853	1893516.935	712.776	-0.147	-0.065	-0.124	
1	R1-5-1533b	1017796.000	1893497.000	713.6	1017795.934	1893497.124	713.372	-0.066	0.124	-0.228	
1	R1-5-1534b	1017776.000	1893517.000	713.8	1017776.047	1893517.126	713.712	0.047	0.126	-0.088	
1	R1-5-1535b	1017796.000	1893517.000	713.8	1017796.072	1893516.974	713.595	0.072	-0.026	-0.205	
1	R1-5-1536b	1017778.000	1893554.000	713.9	1017777.990	1893554.052	711.833	-0.010	0.052	-2.067	
1	R1-5-1548b	1017876.000	1893383.000	709.9	1017876.003	1893383.078	709.750	0.003	0.078	-0.150	
1	R1-5-1549b	1017915.000	1893397.000	714.9	1017915.073	1893397.077	714.580	0.073	0.077	-0.320	
1	R1-5-1551b	1017916.000	1893383.000	714.5	1017915.883	1893382.977	713.719	-0.117	-0.023	-0.781	
1	R1-5-1553b	1017873.000	1893366.000	711.8	1017872.985	1893365.953	711.747	-0.015	-0.047	-0.053	
1	R1-5-1565b	1017813.000	1893397.000	715	1017812.946	1893396.939	714.658	-0.054	-0.061	-0.342	
1	R1-5-1566b	1017796.000	1893397.000	714.6	1017796.075	1893397.059	714.574	0.075	0.059	-0.026	
1	R1-5-1567b	1017780.000	1893397.000	713.2	1017780.053	1893396.992	713.055	0.053	-0.008	-0.145	
1	R1-5-1568b	1017772.000	1893397.000	714	1017771.967	1893397.009	713.458	-0.033	0.009	-0.542	
1	R1-5-1569b	1017771.000	1893411.000	713.2	1017770.950	1893411.044	713.073	-0.050	0.044	-0.127	
1	R1-5-1570b	1017791.000	1893422.000	713.7	1017790.911	1893421.966	713.661	-0.089	-0.034	-0.039	
1	R1-5-1571b	1017774.000	1893422.000	713.5	1017774.052	1893421.986	713.323	0.052	-0.014	-0.177	
1	R1-5-1572b	1017770.000	1893422.000	714.1	1017770.020	1893422.022	713.732	0.020	0.022	-0.368	
1	R1-5-1573b	1017791.000	1893447.000	712.8	1017791.056	1893446.937	712.624	0.056	-0.063	-0.176	
1	R1-5-1574b	1017774.000	1893447.000	713.9	1017773.975	1893447.044	713.794	-0.025	0.044	-0.106	
1	R1-5-1575b	1017771.000	1893447.000	714.7	1017770.926	1893446.955	714.259	-0.074	-0.045	-0.441	
1	R1-5-1585b	1017770.000	1893434.000	714	1017770.006	1893433.998	713.745	0.006	-0.002	-0.255	
1	R1-5-1586b	1017773.000	1893460.000	714.6	1017773.087	1893460.040	714.340	0.087	0.040	-0.260	
1	R1-5-1587b	1017789.000	1893506.000	712.9	1017789.063	1893506.058	712.775	0.063	0.058	-0.125	
1	R1-5-1588b	1017774.000	1893489.000	714.1	1017774.041	1893489.105	714.017	0.041	0.105	-0.083	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN				ACTUAL				DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1589b	1017778.000	1893530.000	714	1017778.154	1893530.063	713.769	0.154	0.063	-0.231	
1	R1-5-1590b	1017778.000	1893542.000	713.4	1017777.945	1893542.101	713.208	-0.055	0.101	-0.192	
1	R1-5-1591b	1017823.000	1893542.000	710.8	1017823.097	1893542.060	710.786	0.097	0.060	-0.014	
1	R1-5-1596b	1017806.000	1893566.000	707.4	1017806.015	1893566.052	707.175	0.015	0.052	-0.225	
1	R1-5-1598b	1017786.000	1893566.000	711.1	1017785.955	1893565.994	709.929	-0.045	-0.006	-1.171	
1	R1-5-1599b	1017778.000	1893566.000	715.3	1017777.985	1893566.028	711.611	-0.015	0.028	-3.689	
1	R1-5-1600b	1017861.000	1893577.000	712.1	1017861.046	1893577.052	712.033	0.046	0.052	-0.067	
1	R1-5-1603b	1017821.000	1893577.000	707.1	1017821.117	1893576.830	706.312	0.117	-0.170	-0.788	Excavated deeper to remove sludge layer
1	R1-5-1604b	1017811.000	1893577.000	706.2	1017811.050	1893576.973	705.946	0.050	-0.027	-0.254	
1	R1-5-1606b	1017779.000	1893577.000	706.8	1017779.049	1893577.089	706.578	0.049	0.089	-0.222	
1	R1-5-1607b	1017788.000	1893588.000	705.7	1017788.004	1893587.980	704.153	0.004	-0.020	-1.547	Excavated deeper to remove sludge layer
1	R1-5-1608b	1017798.000	1893588.000	705.3	1017798.003	1893588.000	702.477	0.003	0.000	-2.823	Excavated deeper to remove sludge layer
1	R1-5-1609b	1017808.000	1893588.000	703.7	1017807.962	1893588.077	703.149	-0.038	0.077	-0.551	Excavated deeper to remove sludge layer
1	R1-5-1611b	1017828.000	1893588.000	703.5	1017827.874	1893588.051	703.495	-0.126	0.051	-0.005	
1	R1-5-1612b	1017838.000	1893588.000	702.3	1017837.905	1893587.980	702.268	-0.095	-0.020	-0.032	
1	R1-5-1614b	1017835.000	1893601.000	710	1017834.874	1893601.114	709.981	-0.126	0.114	-0.019	
1	R1-5-1615b	1017825.000	1893601.000	710.1	1017824.889	1893600.869	710.095	-0.111	-0.131	-0.005	
1	R1-5-1616b	1017815.000	1893601.000	707.5	1017814.858	1893601.029	706.144	-0.142	0.029	-1.356	Excavated deeper to remove sludge layer
1	R1-5-1617b	1017805.000	1893601.000	706.8	1017804.966	1893601.012	704.792	-0.034	0.012	-2.008	Excavated deeper to remove sludge layer
1	R1-5-1618b	1017795.000	1893601.000	704	1017795.013	1893600.946	703.921	0.013	-0.054	-0.079	
1	R1-5-1619b	1017785.000	1893601.000	704.2	1017784.942	1893601.120	704.012	-0.058	0.120	-0.188	
1	R1-5-1620b	1017806.000	1893611.000	710.9	1017805.907	1893610.837	710.671	-0.093	-0.163	-0.229	
1	R1-5-1621b	1017796.000	1893611.000	710.1	1017796.013	1893611.051	709.861	0.013	0.051	-0.239	
1	R1-5-1623b	1017802.000	1893637.000	712.7	1017802.002	1893637.040	712.659	0.002	0.040	-0.041	
1	R1-5-1625b	1017906.000	1893366.000	713.4	1017905.963	1893365.901	712.512	-0.037	-0.099	-0.888	
1	R1-5-1626b	1017923.000	1893366.000	713.3	1017923.027	1893366.002	713.196	0.027	0.002	-0.104	
1	R1-5-1630b	1017923.000	1893350.000	713.8	1017923.108	1893349.971	713.582	0.108	-0.029	-0.218	
1	R1-5-1631b	1017939.000	1893350.000	713.8	1017939.063	1893349.964	713.637	0.063	-0.036	-0.163	
1	R1-5-1634b	1017906.000	1893350.000	712.3	1017905.954	1893350.028	712.294	-0.046	0.028	-0.006	
1	R1-5-1635b	1017939.000	1893334.000	713.6	1017939.021	1893334.118	713.458	0.021	0.118	-0.142	
1	R1-5-1639b	1017786.000	1893611.000	713.7	1017785.986	1893610.954	713.315	-0.014	-0.046	-0.385	
1	R1-5-1641b	1017840.000	1893366.000	712.4	1017839.970	1893365.977	712.252	-0.030	-0.023	-0.148	
1	R1-5-1642b	1017823.000	1893366.000	712.8	1017823.027	1893366.111	712.577	0.027	0.111	-0.223	
1	R1-5-1643b	1017807.000	1893366.000	712.8	1017807.000	1893366.009	712.545	0.000	0.009	-0.255	
1	R1-5-1644b	1017791.000	1893366.000	713	1017790.952	1893365.956	712.813	-0.048	-0.044	-0.187	
1	R1-5-1647b	1017939.000	1893317.000	713.6	1017938.927	1893316.937	712.731	-0.073	-0.063	-0.869	
1	R1-5-1650b	1017953.000	1893301.000	713.7	1017953.067	1893301.027	713.448	0.067	0.027	-0.252	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

## Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1651b	1017969.000	1893301.000	714.4	1017968.970	1893301.050	714.232	-0.030	0.050	-0.168	
1	R1-5-1654b	1017954.000	1893280.000	710.2	1017953.883	1893280.082	710.033	-0.117	0.082	-0.167	
1	R1-5-1659b	1017970.000	1893263.000	713.9	1017969.981	1893263.017	713.768	-0.019	0.017	-0.132	
1	R1-5-1662b	1017890.000	1893350.000	711.1	1017889.911	1893350.026	711.037	-0.089	0.026	-0.063	
1	R1-5-1663b	1017873.000	1893350.000	710.9	1017873.015	1893349.912	710.775	0.015	-0.088	-0.125	
1	R1-5-1664b	1017890.000	1893334.000	711.1	1017889.905	1893333.942	710.912	-0.095	-0.058	-0.188	
1	R1-5-1665b	1017902.000	1893334.000	710.6	1017902.020	1893334.086	710.490	0.020	0.086	-0.110	
1	R1-5-1666b	1017856.000	1893340.000	712.7	1017855.975	1893340.039	712.593	-0.025	0.039	-0.107	
1	R1-5-1667b	1017840.000	1893339.000	713.3	1017840.094	1893339.032	713.164	0.094	0.032	-0.136	
1	R1-5-1668b	1017823.000	1893339.000	714	1017822.967	1893338.989	713.907	-0.033	-0.011	-0.093	
1	R1-5-1669b	1017807.000	1893338.000	714	1017806.989	1893337.989	713.907	-0.011	-0.011	-0.093	
1	R1-5-1673b	1017867.000	1893320.000	713.7	1017866.953	1893320.013	713.507	-0.047	0.013	-0.193	
1	R1-5-1674b	1017852.000	1893317.000	714.4	1017851.958	1893316.971	713.700	-0.042	-0.029	-0.700	
1	R1-5-1675b	1017835.000	1893313.000	714.3	1017834.964	1893312.979	714.189	-0.036	-0.021	-0.111	
1	R1-5-1676b	1017818.000	1893310.000	714.1	1017817.987	1893310.005	713.997	-0.013	0.005	-0.103	
1	R1-5-1685b	1017890.000	1893299.000	712.9	1017890.079	1893299.014	712.784	0.079	0.014	-0.116	
1	R1-5-1686b	1017883.000	1893295.000	713.9	1017883.011	1893294.956	713.564	0.011	-0.044	-0.336	
1	R1-5-1687b	1017867.000	1893290.000	712.9	1017867.066	1893290.004	712.713	0.066	0.004	-0.187	
1	R1-5-1689b	1017852.000	1893284.000	714.3	1017851.979	1893284.014	714.157	-0.021	0.014	-0.143	
1	R1-5-16b	1017865.000	1893601.000	711.8	1017864.902	1893601.015	711.263	-0.098	0.015	-0.537	
1	R1-5-1721b	1017872.000	1893237.000	713.9	1017871.919	1893237.034	713.432	-0.081	0.034	-0.468	
1	R1-5-1722b	1017889.000	1893237.000	713.3	1017888.947	1893236.974	713.204	-0.053	-0.026	-0.096	
1	R1-5-1723b	1017905.000	1893237.000	713	1017904.949	1893236.964	712.832	-0.051	-0.036	-0.168	
1	R1-5-1727b	1017873.000	1893250.000	713.8	1017873.001	1893250.062	713.398	0.001	0.062	-0.402	
1	R1-5-1729b	1017873.000	1893262.000	714	1017872.975	1893262.022	713.900	-0.025	0.022	-0.100	
1	R1-5-1730b	1017886.000	1893267.000	713.3	1017885.970	1893266.919	713.086	-0.030	-0.081	-0.214	
1	R1-5-1731b	1017899.000	1893257.000	713.4	1017898.991	1893256.962	713.278	-0.009	-0.038	-0.122	
1	R1-5-1752b	1017922.000	1893237.000	709.6	1017921.960	1893237.097	709.393	-0.040	0.097	-0.207	
1	R1-5-1753b	1017938.000	1893237.000	711.8	1017938.049	1893237.026	711.715	0.049	0.026	-0.085	
1	R1-5-1756b	1017908.000	1893195.000	711	1017908.056	1893195.001	710.855	0.056	0.001	-0.145	
1	R1-5-1757b	1017918.000	1893198.000	711.6	1017918.052	1893197.956	711.530	0.052	-0.044	-0.070	
1	R1-5-1758b	1017938.000	1893272.000	710.6	1017937.962	1893272.003	710.580	-0.038	0.003	-0.020	
1	R1-5-1759b	1017925.000	1893287.000	710.6	1017925.039	1893286.896	710.559	0.039	-0.104	-0.041	
1	R1-5-1760b	1017919.000	1893301.000	710.5	1017918.916	1893301.003	710.280	-0.084	0.003	-0.220	
1	R1-5-1779b	1017972.000	1893223.000	711.3	1017971.945	1893222.996	711.259	-0.055	-0.004	-0.041	
1	R1-5-1780b	1017988.000	1893226.000	712.4	1017987.960	1893225.965	712.157	-0.040	-0.035	-0.243	
1	R1-5-1781b	1018004.000	1893229.000	715.6	1018003.986	1893228.969	714.675	-0.014	-0.031	-0.925	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1783b	1018012.000	1893231.000	715.1	1018011.994	1893231.075	714.939	-0.006	0.075	-0.161	
1	R1-5-1784b	1017984.000	1893186.000	710.7	1017984.038	1893185.985	710.480	0.038	-0.015	-0.220	
1	R1-5-1785b	1018004.000	1893195.000	715.4	1018003.970	1893194.983	715.348	-0.030	-0.017	-0.052	
1	R1-5-1786b	1018000.000	1893183.000	712.5	1018000.015	1893183.005	712.395	0.015	0.005	-0.105	
1	R1-5-1787b	1017908.000	1893317.000	710.4	1017908.052	1893317.030	710.321	0.052	0.030	-0.079	
1	R1-5-17b	1017875.000	1893601.000	715	1017875.049	1893600.986	714.553	0.049	-0.014	-0.447	
1	R1-5-1801b	1018017.000	1893170.000	715	1018017.080	1893170.002	714.920	0.080	0.002	-0.080	
1	R1-5-1803b	1018000.000	1893170.000	711.8	1018000.002	1893170.060	711.696	0.002	0.060	-0.104	
1	R1-5-1804b	1018025.000	1893145.000	714.8	1018024.979	1893144.974	714.594	-0.021	-0.026	-0.206	
1	R1-5-1807b	1018017.000	1893145.000	714.4	1018016.927	1893144.982	714.378	-0.073	-0.018	-0.022	
1	R1-5-1809b	1018005.000	1893140.000	712.5	1018004.936	1893140.070	712.277	-0.064	0.070	-0.223	
1	R1-5-1810b	1018001.000	1893118.000	713.5	1018000.920	1893118.013	713.362	-0.080	0.013	-0.138	
1	R1-5-1811b	1018017.000	1893118.000	714	1018016.949	1893118.043	713.898	-0.051	0.043	-0.102	
1	R1-5-1830b	1018019.000	1893085.000	715.5	1018019.006	1893084.980	715.323	0.006	-0.020	-0.177	
1	R1-5-1832b	1018035.000	1893085.000	715.7	1018035.016	1893084.946	715.684	0.016	-0.054	-0.016	
1	R1-5-1833b	1018025.000	1893118.000	716.5	1018025.028	1893117.944	716.496	0.028	-0.056	-0.004	
1	R1-5-1834b	1017907.000	1893218.000	712.8	1017906.928	1893217.994	712.680	-0.072	-0.006	-0.120	
1	R1-5-1835b	1017891.000	1893218.000	713.5	1017891.037	1893218.064	713.315	0.037	0.064	-0.185	
1	R1-5-1861b	1017891.000	1893202.000	712	1017891.036	1893201.965	711.958	0.036	-0.035	-0.042	
1	R1-5-1862b	1017907.000	1893202.000	712.2	1017907.003	1893202.061	712.022	0.003	0.061	-0.178	
1	R1-5-1863b	1017921.000	1893218.000	712.7	1017920.978	1893218.025	712.669	-0.022	0.025	-0.031	
1	R1-5-1864b	1017903.000	1893189.000	712.1	1017902.987	1893189.059	711.699	-0.013	0.059	-0.401	
1	R1-5-18656b	1018001.200	1892991.400	710.7	1018001.264	1892991.416	710.636	0.064	0.016	-0.064	
1	R1-5-18659b	1017996.500	1892983.400	710.7	1017996.596	1892983.403	710.662	0.096	0.003	-0.038	
1	R1-5-1865b	1017895.000	1893170.000	712.1	1017895.005	1893170.008	711.988	0.005	0.008	-0.112	
1	R1-5-18660b	1017985.000	1892975.100	711.3	1017984.987	1892975.129	711.147	-0.013	0.029	-0.153	
1	R1-5-18661b	1017983.600	1892995.800	711.4	1017983.611	1892995.822	711.334	0.011	0.022	-0.066	
1	R1-5-18662b	1017974.000	1892985.100	715.2	1017973.984	1892985.033	715.121	-0.016	-0.067	-0.079	
1	R1-5-1866b	1017888.000	1893160.000	712	1017888.035	1893159.982	711.843	0.035	-0.018	-0.157	
1	R1-5-1867b	1017879.000	1893141.000	712.7	1017879.003	1893141.000	712.558	0.003	0.000	-0.142	
1	R1-5-1868b	1017877.000	1893126.000	715.1	1017876.992	1893126.022	714.920	-0.008	0.022	-0.180	
1	R1-5-1869b	1017884.000	1893090.000	714.4	1017884.012	1893090.004	714.294	0.012	0.004	-0.106	
1	R1-5-1870b	1017876.000	1893110.000	716.7	1017876.031	1893110.039	716.674	0.031	0.039	-0.026	
1	R1-5-1871b	1017889.000	1893076.000	715.5	1017889.058	1893076.047	715.482	0.058	0.047	-0.018	
1	R1-5-1873b	1017897.000	1893065.000	715.7	1017897.112	1893064.956	715.505	0.112	-0.044	-0.195	
1	R1-5-1890b	1017875.000	1893202.000	714.1	1017874.975	1893202.058	713.300	-0.025	0.058	-0.800	
1	R1-5-1898b	1017883.000	1893218.000	712.2	1017883.024	1893217.968	712.043	0.024	-0.032	-0.157	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1899b	1017883.000	1893226.000	713.7	1017882.969	1893226.085	713.419	-0.031	0.085	-0.281	
1	R1-5-18b	1017885.000	1893601.000	715.3	1017884.882	1893600.944	714.992	-0.118	-0.056	-0.308	
1	R1-5-1902b	1017858.000	1893195.000	715.3	1017857.886	1893194.991	714.552	-0.114	-0.009	-0.748	
1	R1-5-1903b	1017866.000	1893195.000	714	1017866.033	1893195.119	713.920	0.033	0.119	-0.080	
1	R1-5-1904b	1017875.000	1893195.000	713.1	1017875.005	1893195.026	712.785	0.005	0.026	-0.315	
1	R1-5-1905b	1017891.000	1893189.000	712	1017891.000	1893189.031	711.686	0.000	0.031	-0.314	
1	R1-5-1906b	1017875.000	1893189.000	712.7	1017874.988	1893188.985	712.053	-0.012	-0.015	-0.647	
1	R1-5-1923b	1017920.000	1893189.000	710.8	1017920.031	1893188.957	710.688	0.031	-0.043	-0.112	
1	R1-5-1924b	1017937.000	1893162.000	710.7	1017936.944	1893162.023	710.511	-0.056	0.023	-0.189	
1	R1-5-1925b	1017920.000	1893162.000	711.5	1017920.097	1893162.030	711.342	0.097	0.030	-0.158	
1	R1-5-1926b	1017904.000	1893162.000	711.3	1017903.951	1893161.979	711.183	-0.049	-0.021	-0.117	
1	R1-5-1927b	1017953.000	1893131.000	708.5	1017953.010	1893131.018	708.398	0.010	0.018	-0.102	
1	R1-5-1928b	1017937.000	1893131.000	709.7	1017937.082	1893131.068	709.529	0.082	0.068	-0.171	
1	R1-5-1929b	1017920.000	1893131.000	711.2	1017920.034	1893131.053	710.978	0.034	0.053	-0.222	
1	R1-5-1930b	1017903.000	1893131.000	708.9	1017902.985	1893130.933	708.874	-0.015	-0.067	-0.026	
1	R1-5-1931b	1017888.000	1893131.000	711.7	1017887.955	1893130.981	711.638	-0.045	-0.019	-0.062	
1	R1-5-1951b	1017920.000	1893098.000	710.5	1017919.979	1893098.058	710.228	-0.021	0.058	-0.272	
1	R1-5-1952b	1017904.000	1893098.000	710.3	1017903.940	1893098.061	710.079	-0.060	0.061	-0.221	
1	R1-5-1953b	1017888.000	1893098.000	712.2	1017888.073	1893098.023	712.197	0.073	0.023	-0.003	
1	R1-5-1954b	1017937.000	1893068.000	710.6	1017937.020	1893067.891	709.509	0.020	-0.109	-1.091	
1	R1-5-1955b	1018002.000	1893085.000	712.8	1018001.980	1893085.016	712.714	-0.020	0.016	-0.086	
1	R1-5-1956b	1018017.000	1893052.000	709.2	1018016.997	1893051.903	709.072	-0.003	-0.097	-0.128	
1	R1-5-1957b	1018017.000	1893036.000	709	1018016.981	1893035.973	708.979	-0.019	-0.027	-0.021	
1	R1-5-1958b	1017937.000	1893098.000	709.8	1017936.959	1893097.911	709.727	-0.041	-0.089	-0.073	
1	R1-5-1959b	1017937.000	1893104.000	710.2	1017937.062	1893103.993	709.974	0.062	-0.007	-0.226	
1	R1-5-1960b	1017954.000	1893068.000	709.3	1017954.003	1893067.971	709.211	0.003	-0.029	-0.089	
1	R1-5-1969b	1017920.000	1893068.000	709.1	1017920.008	1893068.031	709.081	0.008	0.031	-0.019	
1	R1-5-1970b	1017933.000	1893040.000	711	1017933.074	1893039.997	710.664	0.074	-0.003	-0.336	
1	R1-5-1971b	1017972.000	1893068.000	710	1017971.981	1893068.067	709.982	-0.019	0.067	-0.018	
1	R1-5-1972b	1017988.000	1893068.000	711.1	1017988.102	1893067.868	710.898	0.102	-0.132	-0.202	
1	R1-5-1973b	1017953.000	1893098.000	709.8	1017952.961	1893097.950	709.769	-0.039	-0.050	-0.031	
1	R1-5-1975b	1017970.000	1893098.000	711.5	1017970.077	1893098.000	711.482	0.077	0.000	-0.018	
1	R1-5-1983b	1017891.000	1893181.000	710.6	1017890.936	1893181.057	710.375	-0.064	0.057	-0.225	
1	R1-5-1984b	1017875.000	1893181.000	712.8	1017875.145	1893181.021	712.685	0.145	0.021	-0.115	
1	R1-5-1986b	1017866.000	1893181.000	714.4	1017866.106	1893180.993	714.046	0.106	-0.007	-0.354	
1	R1-5-1989b	1017990.000	1893040.000	710.6	1017990.012	1893040.021	710.440	0.012	0.021	-0.160	
1	R1-5-1990b	1017996.000	1893026.000	710.1	1017995.962	1893026.016	709.968	-0.038	0.016	-0.132	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-1991b	1017967.000	1893112.000	709	1017967.028	1893111.985	708.954	0.028	-0.015	-0.046	
1	R1-5-1992b	1017969.000	1893131.000	709.6	1017969.024	1893131.074	709.478	0.024	0.074	-0.122	
1	R1-5-1994b	1017953.000	1893162.000	710.3	1017952.970	1893162.026	710.254	-0.030	0.026	-0.046	
1	R1-5-1995b	1017969.000	1893162.000	709.3	1017968.978	1893161.986	709.187	-0.022	-0.014	-0.113	
1	R1-5-1997b	1017953.000	1893189.000	710	1017952.970	1893188.995	709.799	-0.030	-0.005	-0.201	
1	R1-5-1998b	1017974.000	1893040.000	710.3	1017973.968	1893039.995	710.279	-0.032	-0.005	-0.021	
1	R1-5-1999b	1017958.000	1893040.000	709.1	1017958.076	1893039.956	709.059	0.076	-0.044	-0.041	
1	R1-5-19b	1017890.000	1893601.000	715.9	1017890.019	1893600.973	715.471	0.019	-0.027	-0.429	
1	R1-5-2000b	1018000.000	1893052.000	710.5	1017999.958	1893052.087	710.379	-0.042	0.087	-0.121	
1	R1-5-2001b	1017983.000	1893052.000	711.2	1017983.042	1893051.952	711.158	0.042	-0.048	-0.042	
1	R1-5-2002b	1017968.000	1893052.000	710.3	1017968.014	1893052.070	710.270	0.014	0.070	-0.030	
1	R1-5-2004b	1018000.000	1893012.000	709	1017999.915	1893012.018	708.946	-0.085	0.018	-0.054	
1	R1-5-2005b	1017984.000	1893012.000	707.1	1017983.933	1893012.047	706.881	-0.067	0.047	-0.219	
1	R1-5-2006b	1017973.000	1893083.000	710.3	1017972.930	1893082.972	710.151	-0.070	-0.028	-0.149	
1	R1-5-2007b	1017952.000	1893012.000	710.4	1017951.943	1893011.945	710.320	-0.057	-0.055	-0.080	
1	R1-5-2008b	1018026.000	1893232.000	716.4	1018025.917	1893231.902	716.136	-0.083	-0.098	-0.264	
1	R1-5-2021b	1018017.000	1893216.000	716	1018017.106	1893215.924	715.988	0.106	-0.076	-0.012	
1	R1-5-2022b	1017993.000	1893198.000	713.1	1017993.058	1893197.984	713.027	0.058	-0.016	-0.073	
1	R1-5-2023b	1018001.000	1893138.000	710.2	1018000.932	1893138.023	710.130	-0.068	0.023	-0.070	
1	R1-5-21b	1017871.000	1893577.000	711.1	1017871.043	1893577.033	710.883	0.043	0.033	-0.217	
1	R1-5-22b	1017881.000	1893577.000	710.3	1017881.072	1893576.985	710.131	0.072	-0.015	-0.169	
1	R1-5-23b	1017891.000	1893577.000	713.1	1017890.990	1893576.959	712.410	-0.010	-0.041	-0.690	
1	R1-5-24b	1017901.000	1893577.000	715.3	1017900.986	1893576.993	714.439	-0.014	-0.007	-0.861	
1	R1-5-2526b	1018021.000	1893004.000	711.9	1018021.110	1893003.930	711.490	0.110	-0.070	-0.410	
1	R1-5-2527b	1018036.000	1893009.000	710.3	1018036.070	1893009.050	710.120	0.070	0.050	-0.180	
1	R1-5-25b	1017906.000	1893577.000	715.3	1017906.105	1893576.900	714.743	0.105	-0.100	-0.557	
1	R1-5-27b	1017836.000	1893554.000	711.5	1017836.087	1893553.923	711.452	0.087	-0.077	-0.048	
1	R1-5-28b	1017846.000	1893554.000	711.9	1017846.047	1893554.002	711.767	0.047	0.002	-0.133	
1	R1-5-29b	1017856.000	1893554.000	712.4	1017855.917	1893554.078	712.356	-0.083	0.078	-0.044	
1	R1-5-30b	1017866.000	1893554.000	712.1	1017865.958	1893553.988	712.071	-0.042	-0.012	-0.029	
1	R1-5-31b	1017876.000	1893554.000	711.9	1017875.964	1893554.000	711.700	-0.036	0.000	-0.200	
1	R1-5-32b	1017886.000	1893554.000	711.5	1017886.032	1893554.030	711.435	0.032	0.030	-0.065	
1	R1-5-33b	1017896.000	1893554.000	716	1017896.038	1893554.008	715.109	0.038	0.008	-0.891	
1	R1-5-34b	1017906.000	1893554.000	713.6	1017906.025	1893554.020	713.336	0.025	0.020	-0.264	
1	R1-5-35b	1017916.000	1893554.000	714.7	1017915.950	1893553.969	714.431	-0.050	-0.031	-0.269	
1	R1-5-376b	1017817.000	1893554.000	711.3	1017816.959	1893554.001	711.205	-0.041	0.001	-0.095	
1	R1-5-377b	1017804.000	1893554.000	711.8	1017803.962	1893553.936	711.701	-0.038	-0.064	-0.099	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-378b	1017825.000	1893530.000	712.3	1017824.930	1893530.002	711.947	-0.070	0.002	-0.353	
1	R1-5-379b	1017809.000	1893530.000	713.6	1017809.044	1893529.902	713.388	0.044	-0.098	-0.212	
1	R1-5-381b	1017830.000	1893506.000	710.6	1017830.065	1893506.002	710.532	0.065	0.002	-0.068	
1	R1-5-382b	1017814.000	1893506.000	713.4	1017813.963	1893505.975	713.146	-0.037	-0.025	-0.254	
1	R1-5-383b	1017798.000	1893506.000	713.5	1017798.013	1893506.069	713.476	0.013	0.069	-0.024	
1	R1-5-384b	1017903.000	1893506.000	713.5	1017903.043	1893505.929	713.485	0.043	-0.071	-0.015	
1	R1-5-38b	1017843.000	1893530.000	711.2	1017843.008	1893529.960	711.099	0.008	-0.040	-0.101	
1	R1-5-392b	1017908.000	1893488.000	714.3	1017908.045	1893487.991	714.067	0.045	-0.009	-0.233	
1	R1-5-394b	1017831.000	1893489.000	711.6	1017831.044	1893488.916	711.588	0.044	-0.084	-0.012	
1	R1-5-395b	1017814.000	1893489.000	712.5	1017814.120	1893488.966	712.191	0.120	-0.034	-0.309	
1	R1-5-396b	1017799.000	1893489.000	712	1017798.918	1893489.076	711.801	-0.082	0.076	-0.199	
1	R1-5-397b	1017827.000	1893460.000	711	1017827.019	1893459.920	710.837	0.019	-0.080	-0.163	
1	R1-5-39b	1017853.000	1893530.000	710.9	1017853.080	1893530.059	710.879	0.080	0.059	-0.021	
1	R1-5-40b	1017863.000	1893530.000	711.7	1017863.010	1893529.988	711.635	0.010	-0.012	-0.065	
1	R1-5-410b	1017892.000	1893383.000	712.2	1017891.957	1893382.969	712.138	-0.043	-0.031	-0.062	
1	R1-5-411b	1017903.000	1893360.000	712.4	1017903.096	1893359.926	712.272	0.096	-0.074	-0.128	
1	R1-5-412b	1017921.000	1893332.000	713.2	1017921.001	1893331.869	712.939	0.001	-0.131	-0.261	
1	R1-5-413b	1017936.000	1893341.000	713.7	1017936.011	1893340.919	713.480	0.011	-0.081	-0.220	
1	R1-5-416b	1017936.000	1893302.000	712.9	1017935.899	1893301.972	712.681	-0.101	-0.028	-0.219	
1	R1-5-419b	1017795.000	1893460.000	713.4	1017795.011	1893459.943	713.171	0.011	-0.057	-0.229	
1	R1-5-41b	1017873.000	1893530.000	712.8	1017873.020	1893530.025	712.743	0.020	0.025	-0.057	
1	R1-5-420b	1017779.000	1893460.000	713.8	1017779.085	1893459.982	713.360	0.085	-0.018	-0.440	
1	R1-5-422b	1017781.000	1893505.000	714.1	1017781.030	1893504.943	714.042	0.030	-0.057	-0.058	
1	R1-5-423b	1017783.000	1893489.000	713.8	1017782.941	1893489.133	713.716	-0.059	0.133	-0.084	
1	R1-5-425b	1017806.000	1893434.000	711.8	1017806.039	1893434.046	711.575	0.039	0.046	-0.225	
1	R1-5-426b	1017790.000	1893435.000	713.8	1017790.030	1893435.021	712.759	0.030	0.021	-1.041	
1	R1-5-427b	1017774.000	1893435.000	713.6	1017774.078	1893435.013	713.584	0.078	0.013	-0.016	
1	R1-5-428b	1017810.000	1893411.000	714.8	1017810.046	1893410.921	713.473	0.046	-0.079	-1.327	Point was surveyed at existing ground surface
1	R1-5-429b	1017794.000	1893411.000	714.7	1017793.993	1893411.102	714.247	-0.007	0.102	-0.453	
1	R1-5-42b	1017883.000	1893530.000	713.9	1017883.155	1893530.046	713.091	0.155	0.046	-0.809	
1	R1-5-430b	1017778.000	1893411.000	714.1	1017777.995	1893411.000	713.789	-0.005	0.000	-0.311	
1	R1-5-431b	1017842.000	1893384.000	711.6	1017842.091	1893383.987	711.313	0.091	-0.013	-0.287	
1	R1-5-432b	1017826.000	1893384.000	714.3	1017825.851	1893383.983	714.194	-0.149	-0.017	-0.106	
1	R1-5-433b	1017810.000	1893384.000	714.2	1017810.029	1893384.042	713.917	0.029	0.042	-0.283	
1	R1-5-434b	1017794.000	1893384.000	713.5	1017793.993	1893384.009	713.428	-0.007	0.009	-0.072	
1	R1-5-435b	1017778.000	1893384.000	713.7	1017778.005	1893383.965	713.503	0.005	-0.035	-0.197	
1	R1-5-436b	1017768.000	1893384.000	714.6	1017768.049	1893383.929	713.754	0.049	-0.071	-0.846	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-43b	1017893.000	1893530.000	712.6	1017893.029	1893530.013	712.320	0.029	0.013	-0.280	
1	R1-5-440b	1017952.000	1893269.000	707.8	1017952.017	1893268.894	707.647	0.017	-0.106	-0.153	
1	R1-5-443b	1017967.000	1893239.000	712	1017967.053	1893239.038	711.644	0.053	0.038	-0.356	
1	R1-5-444b	1017983.000	1893244.000	712.8	1017982.948	1893244.010	712.583	-0.052	0.010	-0.217	
1	R1-5-446b	1017977.000	1893206.000	711.5	1017977.025	1893206.021	711.367	0.025	0.021	-0.133	
1	R1-5-447b	1017992.000	1893211.000	713.4	1017992.077	1893210.886	713.219	0.077	-0.114	-0.181	
1	R1-5-449b	1018017.000	1893182.000	713.2	1018017.082	1893182.050	713.149	0.082	0.050	-0.051	
1	R1-5-44b	1017903.000	1893530.000	712.6	1017902.932	1893530.024	712.582	-0.068	0.024	-0.018	
1	R1-5-450b	1018015.000	1893161.000	713.2	1018014.991	1893161.017	713.188	-0.009	0.017	-0.012	
1	R1-5-451b	1018001.000	1893158.000	712.2	1018001.064	1893158.023	712.010	0.064	0.023	-0.190	
1	R1-5-452b	1017991.000	1893176.000	711.5	1017991.032	1893176.030	711.375	0.032	0.030	-0.125	
1	R1-5-453b	1018008.000	1893180.000	714.4	1018007.989	1893180.036	714.254	-0.011	0.036	-0.146	
1	R1-5-454b	1018017.000	1893134.000	713	1018017.035	1893133.942	712.934	0.035	-0.058	-0.066	
1	R1-5-455b	1018018.000	1893104.000	714.1	1018017.967	1893103.987	714.069	-0.033	-0.013	-0.031	
1	R1-5-456b	1018002.000	1893104.000	713.3	1018002.012	1893104.085	713.255	0.012	0.085	-0.045	
1	R1-5-457b	1018028.000	1893070.000	713.5	1018028.006	1893070.060	713.456	0.006	0.060	-0.044	
1	R1-5-458b	1018012.000	1893066.000	711.8	1018012.054	1893065.921	711.767	0.054	-0.079	-0.033	
1	R1-5-459b	1018035.000	1893034.000	716.9	1018035.037	1893034.039	716.861	0.037	0.039	-0.039	
1	R1-5-45b	1017913.000	1893530.000	713.9	1017913.030	1893530.073	713.823	0.030	0.073	-0.077	
1	R1-5-48b	1017847.000	1893506.000	710.3	1017847.073	1893505.926	710.107	0.073	-0.074	-0.193	
1	R1-5-49b	1017857.000	1893506.000	713.6	1017857.000	1893505.922	712.571	0.000	-0.078	-1.029	
1	R1-5-50b	1017867.000	1893506.000	712	1017867.023	1893506.063	711.848	0.023	0.063	-0.152	
1	R1-5-51b	1017877.000	1893506.000	711.3	1017877.047	1893505.991	710.946	0.047	-0.009	-0.354	
1	R1-5-528b	1017788.000	1893554.000	713.5	1017788.044	1893553.995	710.746	0.044	-0.005	-2.754	
1	R1-5-529b	1017810.000	1893573.000	706.2	1017810.066	1893572.992	705.711	0.066	-0.008	-0.489	
1	R1-5-52b	1017887.000	1893506.000	712.2	1017887.036	1893506.037	711.958	0.036	0.037	-0.242	
1	R1-5-530b	1017796.000	1893578.000	709.1	1017796.071	1893578.016	708.270	0.071	0.016	-0.830	
1	R1-5-531b	1017821.000	1893568.000	711	1017821.127	1893567.948	710.351	0.127	-0.052	-0.649	
1	R1-5-534b	1017833.000	1893598.000	711.1	1017833.034	1893597.961	710.862	0.034	-0.039	-0.238	
1	R1-5-537b	1017798.000	1893605.000	703	1017798.035	1893604.989	702.963	0.035	-0.011	-0.037	
1	R1-5-53b	1017851.000	1893488.000	710.6	1017851.103	1893488.012	710.373	0.103	0.012	-0.227	
1	R1-5-549b	1017882.000	1893344.000	710.1	1017881.922	1893343.944	710.014	-0.078	-0.056	-0.086	
1	R1-5-54b	1017875.000	1893488.000	712.5	1017874.999	1893488.030	712.431	-0.001	0.030	-0.069	
1	R1-5-550b	1017901.000	1893358.000	713.3	1017900.939	1893357.953	713.128	-0.061	-0.047	-0.172	
1	R1-5-55b	1017884.000	1893488.000	713.5	1017883.944	1893488.030	713.190	-0.056	0.030	-0.310	
1	R1-5-566b	1017880.000	1893373.000	709.9	1017880.027	1893373.061	709.864	0.027	0.061	-0.036	
1	R1-5-567b	1017912.000	1893330.000	710.7	1017912.008	1893330.020	710.588	0.008	0.020	-0.112	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-568b	1017898.000	1893320.000	711.1	1017898.146	1893320.042	711.068	0.146	0.042	-0.032	
1	R1-5-569b	1017878.000	1893332.000	711.4	1017877.927	1893331.996	711.361	-0.073	-0.004	-0.039	
1	R1-5-56b	1017881.000	1893460.000	713.5	1017881.020	1893460.022	713.362	0.020	0.022	-0.138	
1	R1-5-570b	1017923.000	1893313.000	710.5	1017922.936	1893312.901	710.352	-0.064	-0.099	-0.148	
1	R1-5-571b	1017909.000	1893304.000	710.2	1017909.022	1893303.936	710.030	0.022	-0.064	-0.170	
1	R1-5-574b	1017932.000	1893284.000	711.1	1017932.010	1893283.986	711.061	0.010	-0.014	-0.039	
1	R1-5-575b	1017915.000	1893273.000	710.2	1017915.016	1893273.049	710.070	0.016	0.049	-0.130	
1	R1-5-576b	1017946.000	1893256.000	709.3	1017945.936	1893255.963	709.280	-0.064	-0.037	-0.020	
1	R1-5-579b	1017962.000	1893206.000	709.6	1017962.041	1893205.975	709.482	0.041	-0.025	-0.118	
1	R1-5-57b	1017860.000	1893460.000	713.2	1017860.008	1893459.962	713.072	0.008	-0.038	-0.128	
1	R1-5-580b	1017946.000	1893203.000	710.7	1017945.957	1893202.932	710.630	-0.043	-0.068	-0.070	
1	R1-5-581b	1017943.000	1893219.000	711.4	1017942.938	1893219.030	711.367	-0.062	0.030	-0.033	
1	R1-5-582b	1017930.000	1893200.000	712.3	1017929.949	1893200.046	712.072	-0.051	0.046	-0.228	
1	R1-5-584b	1017964.000	1893175.000	709.5	1017963.968	1893174.981	709.462	-0.032	-0.019	-0.038	
1	R1-5-585b	1017983.000	1893147.000	708.9	1017982.982	1893146.985	708.862	-0.018	-0.015	-0.038	
1	R1-5-586b	1017966.000	1893147.000	709.2	1017965.937	1893147.035	709.187	-0.063	0.035	-0.013	
1	R1-5-587b	1017998.000	1893147.000	710.4	1017998.038	1893146.949	710.284	0.038	-0.051	-0.116	
1	R1-5-589b	1017964.000	1893090.000	709.5	1017964.061	1893090.050	709.405	0.061	0.050	-0.095	
1	R1-5-590b	1017979.000	1893090.000	710.8	1017978.924	1893090.058	710.764	-0.076	0.058	-0.036	
1	R1-5-591b	1017976.000	1893062.000	711.1	1017976.066	1893062.028	711.056	0.066	0.028	-0.044	
1	R1-5-592b	1017965.000	1893062.000	710.6	1017965.078	1893062.004	710.511	0.078	0.004	-0.089	
1	R1-5-593b	1017963.000	1893027.000	712.4	1017963.025	1893027.045	712.384	0.025	0.045	-0.016	
1	R1-5-594b	1017980.000	1893027.000	710.3	1017980.009	1893027.006	710.178	0.009	0.006	-0.122	
1	R1-5-596b	1017944.000	1893045.000	710.2	1017944.025	1893045.076	710.052	0.025	0.076	-0.148	
1	R1-5-59b	1017892.000	1893460.000	713.2	1017891.994	1893459.952	713.192	-0.006	-0.048	-0.008	
1	R1-5-61b	1017827.000	1893433.000	710.7	1017826.957	1893432.984	710.693	-0.043	-0.016	-0.007	
1	R1-5-63b	1017882.000	1893433.000	714.4	1017882.051	1893433.108	713.704	0.051	0.108	-0.696	
1	R1-5-64b	1017853.000	1893433.000	711.3	1017853.009	1893432.962	711.193	0.009	-0.038	-0.107	
1	R1-5-65b	1017836.000	1893433.000	710.9	1017836.014	1893432.943	710.781	0.014	-0.057	-0.119	
1	R1-5-66b	1017854.000	1893411.000	712	1017853.988	1893410.987	711.989	-0.012	-0.013	-0.011	
1	R1-5-67b	1017862.000	1893397.000	711.2	1017862.000	1893397.044	711.163	0.000	0.044	-0.037	
1	R1-5-68b	1017871.000	1893411.000	711.1	1017870.960	1893410.988	711.046	-0.040	-0.012	-0.054	
1	R1-5-70b	1017887.000	1893411.000	712.7	1017887.001	1893410.957	712.640	0.001	-0.043	-0.060	
1	R1-5-71b	1017903.000	1893411.000	714.4	1017903.029	1893410.990	713.901	0.029	-0.010	-0.499	
1	R1-5-72b	1017908.000	1893385.000	713.9	1017907.929	1893385.053	713.630	-0.071	0.053	-0.270	
1	R1-5-73b	1017891.000	1893397.000	713.5	1017890.940	1893397.039	712.646	-0.060	0.039	-0.854	
1	R1-5-746b	1017862.000	1893330.000	711.8	1017861.961	1893329.962	711.742	-0.039	-0.038	-0.058	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-747b	1017846.000	1893329.000	714.5	1017845.971	1893328.981	712.848	-0.029	-0.019	-1.652	
1	R1-5-748b	1017849.000	1893351.000	712.6	1017848.954	1893351.016	712.465	-0.046	0.016	-0.135	
1	R1-5-749b	1017832.000	1893351.000	713	1017832.007	1893351.032	712.944	0.007	0.032	-0.056	
1	R1-5-74b	1017902.000	1893214.000	712.3	1017902.048	1893213.942	712.283	0.048	-0.058	-0.017	
1	R1-5-750b	1017816.000	1893351.000	713.3	1017816.014	1893350.996	713.193	0.014	-0.004	-0.107	
1	R1-5-755b	1017888.000	1893317.000	710.3	1017887.998	1893317.095	710.221	-0.002	0.095	-0.079	
1	R1-5-756b	1017872.000	1893311.000	713.8	1017871.951	1893311.014	713.370	-0.049	0.014	-0.430	
1	R1-5-757b	1017857.000	1893306.000	714.3	1017856.936	1893305.986	713.453	-0.064	-0.014	-0.847	
1	R1-5-75b	1017897.000	1893175.000	711.8	1017897.009	1893174.898	711.657	0.009	-0.102	-0.143	
1	R1-5-762b	1017904.000	1893288.000	710.5	1017903.989	1893287.991	710.376	-0.011	-0.009	-0.124	
1	R1-5-763b	1017889.000	1893282.000	713.7	1017888.989	1893281.981	713.470	-0.011	-0.019	-0.230	
1	R1-5-764b	1017873.000	1893275.000	713.2	1017872.986	1893275.038	713.178	-0.014	0.038	-0.022	
1	R1-5-76b	1017914.000	1893175.000	711.6	1017913.977	1893174.990	711.503	-0.023	-0.010	-0.097	
1	R1-5-770b	1017921.000	1893259.000	711.4	1017920.935	1893258.959	711.263	-0.065	-0.041	-0.137	
1	R1-5-771b	1017907.000	1893251.000	713.8	1017906.976	1893251.082	713.633	-0.024	0.082	-0.167	
1	R1-5-772b	1017892.000	1893242.000	713.6	1017891.943	1893241.997	713.342	-0.057	-0.003	-0.258	
1	R1-5-775b	1017932.000	1893233.000	710.4	1017932.039	1893233.034	710.259	0.039	0.034	-0.141	
1	R1-5-776b	1017925.000	1893216.000	711.6	1017925.050	1893216.016	711.566	0.050	0.016	-0.034	
1	R1-5-77b	1017900.000	1893147.000	711.2	1017900.011	1893146.984	711.114	0.011	-0.016	-0.086	
1	R1-5-78b	1017884.000	1893147.000	712.4	1017883.970	1893146.973	712.232	-0.030	-0.027	-0.168	
1	R1-5-79b	1017917.000	1893147.000	711.3	1017916.986	1893146.992	711.130	-0.014	-0.008	-0.170	
1	R1-5-80b	1017952.000	1893114.000	710.1	1017952.007	1893114.005	709.944	0.007	0.005	-0.156	
1	R1-5-81b	1017935.000	1893114.000	709.9	1017935.033	1893113.983	709.875	0.033	-0.017	-0.025	
1	R1-5-82b	1017919.000	1893114.000	711	1017919.000	1893113.992	710.815	0.000	-0.008	-0.185	
1	R1-5-83b	1017902.000	1893114.000	709.8	1017901.957	1893114.021	709.591	-0.043	0.021	-0.209	
1	R1-5-84b	1017950.000	1893147.000	709.6	1017949.939	1893147.020	709.380	-0.061	0.020	-0.220	
1	R1-5-85b	1017933.000	1893147.000	710.4	1017932.939	1893147.052	710.174	-0.061	0.052	-0.226	
1	R1-5-86b	1017946.000	1893084.000	709.7	1017945.877	1893083.887	709.465	-0.123	-0.113	-0.235	
1	R1-5-87b	1017928.000	1893084.000	710.8	1017928.122	1893084.011	710.622	0.122	0.011	-0.178	
1	R1-5-88b	1017908.000	1893084.000	712	1017907.956	1893083.969	711.730	-0.044	-0.031	-0.270	
1	R1-5-89b	1017947.000	1893175.000	709.9	1017947.011	1893174.993	709.883	0.011	-0.007	-0.017	
1	R1-5-90b	1017930.000	1893175.000	711.7	1017929.967	1893175.020	711.508	-0.033	0.020	-0.192	
1	R1-5-91b	1017886.000	1893114.000	711.8	1017886.037	1893114.005	711.679	0.037	0.005	-0.121	
1	R1-5-92b	1017882.000	1893102.000	715.2	1017882.074	1893102.026	715.194	0.074	0.026	-0.006	
1	R1-5-93b	1017894.000	1893075.000	711.3	1017894.018	1893075.066	711.151	0.018	0.066	-0.149	
1	R1-5-94b	1017950.000	1893052.000	710.5	1017949.912	1893051.978	710.257	-0.088	-0.022	-0.243	
1	R1-5-95b	1017933.000	1893052.000	710.2	1017932.988	1893052.066	710.146	-0.012	0.066	-0.054	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red



**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 1 Section R1-5**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-98b	1017935.000	1893027.000	709.3	1017935.076	1893027.031	709.254	0.076	0.031	-0.046	
1	R1-5-9b	1017820.000	1893625.000	713.7	1017819.926	1893625.005	713.575	-0.074	0.005	-0.125	
1	R1-5-B1	1017795.500	1893640.500	712.7	1017795.368	1893640.467	712.674	-0.132	-0.033	-0.026	
1	R1-5-B10	1017772.600	1893619.000	713.2	1017772.632	1893618.994	713.099	0.032	-0.006	-0.101	
1	R1-5-B100	1017910.000	1893474.000	714.4	1017909.940	1893473.950	714.185	-0.060	-0.050	-0.215	
1	R1-5-B101	1017809.000	1893467.000	709.9	1017808.997	1893466.969	709.824	-0.003	-0.031	-0.076	
1	R1-5-B102	1017817.000	1893467.000	711.2	1017816.987	1893467.010	711.045	-0.013	0.010	-0.155	
1	R1-5-B103	1017771.500	1893460.000	714.6	1017771.514	1893459.907	714.470	0.014	-0.093	-0.130	
1	R1-5-B104	1017803.000	1893460.000	713.4	1017803.037	1893459.978	713.175	0.037	-0.022	-0.225	
1	R1-5-B105	1017819.000	1893460.000	711	1017819.002	1893459.932	710.982	0.002	-0.068	-0.018	
1	R1-5-B106	1017834.500	1893460.000	711	1017834.427	1893460.007	710.981	-0.073	0.007	-0.019	
1	R1-5-B107	1017851.000	1893460.000	713.2	1017850.915	1893459.985	713.187	-0.085	-0.015	-0.013	
1	R1-5-B108	1017897.500	1893460.000	713.2	1017897.493	1893460.037	713.155	-0.007	0.037	-0.045	
1	R1-5-B109	1017833.500	1893453.500	710.2	1017833.467	1893453.491	710.186	-0.033	-0.009	-0.014	
1	R1-5-B11	1017781.500	1893619.000	713.2	1017781.568	1893618.980	713.094	0.068	-0.020	-0.106	
1	R1-5-B110	1017849.000	1893453.500	712.8	1017849.042	1893453.570	712.797	0.042	0.070	-0.003	
1	R1-5-B111	1017770.000	1893447.000	714.7	1017769.910	1893446.957	714.462	-0.090	-0.043	-0.238	
1	R1-5-B112	1017799.000	1893447.000	712.8	1017799.014	1893446.954	712.725	0.014	-0.046	-0.075	
1	R1-5-B113	1017815.500	1893447.000	711.2	1017815.530	1893447.029	710.969	0.030	0.029	-0.231	
1	R1-5-B114	1017902.000	1893447.000	713.6	1017901.929	1893447.017	713.585	-0.071	0.017	-0.015	
1	R1-5-B115	1017798.500	1893440.500	711.8	1017798.479	1893440.507	711.442	-0.021	0.007	-0.358	
1	R1-5-B116	1017815.000	1893440.500	711.8	1017814.912	1893440.450	711.726	-0.088	-0.050	-0.074	
1	R1-5-B117	1017769.000	1893434.000	714	1017769.074	1893434.048	713.946	0.074	0.048	-0.054	
1	R1-5-B118	1017890.000	1893433.000	714.4	1017890.098	1893432.993	713.314	0.098	-0.007	-1.086	
1	R1-5-B119	1017806.500	1893428.000	711.8	1017806.494	1893428.057	711.755	-0.006	0.057	-0.045	
1	R1-5-B12	1017835.000	1893618.500	714.4	1017834.895	1893618.611	713.425	-0.105	0.111	-0.975	Point was surveyed at existing ground surface
1	R1-5-B120	1017825.000	1893427.500	710.7	1017824.975	1893427.577	710.667	-0.025	0.077	-0.033	
1	R1-5-B121	1017769.300	1893422.000	714.1	1017769.301	1893421.935	713.749	0.001	-0.065	-0.351	
1	R1-5-B122	1017799.000	1893422.000	713.7	1017798.921	1893421.951	713.393	-0.079	-0.049	-0.307	
1	R1-5-B123	1017831.500	1893422.000	710.4	1017831.539	1893421.994	710.178	0.039	-0.006	-0.222	
1	R1-5-B124	1017897.500	1893422.000	712.7	1017897.563	1893421.915	712.606	0.063	-0.085	-0.094	
1	R1-5-B125	1017800.500	1893416.500	714.7	1017800.467	1893416.483	714.140	-0.033	-0.017	-0.560	
1	R1-5-B126	1017816.500	1893416.500	714.8	1017816.473	1893416.580	712.010	-0.027	0.080	-2.790	Point was surveyed at existing ground surface
1	R1-5-B127	1017834.500	1893416.500	710.4	1017834.502	1893416.520	710.282	0.002	0.020	-0.118	
1	R1-5-B128	1017849.500	1893416.500	712	1017849.627	1893416.428	711.071	0.127	-0.072	-0.929	
1	R1-5-B129	1017904.500	1893416.500	714.4	1017904.518	1893416.510	714.074	0.018	0.010	-0.326	
1	R1-5-B13	1017790.000	1893618.000	713.7	1017790.045	1893618.074	713.289	0.045	0.074	-0.411	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B130	1017768.700	1893411.000	713.2	1017768.684	1893410.916	712.885	-0.016	-0.084	-0.315	
1	R1-5-B131	1017819.500	1893411.000	714.8	1017819.456	1893410.923	710.928	-0.044	-0.077	-3.872	Point was surveyed at existing ground surface
1	R1-5-B132	1017848.500	1893411.000	712	1017848.504	1893411.013	711.841	0.004	0.013	-0.159	
1	R1-5-B133	1017905.500	1893411.000	714.4	1017905.501	1893411.053	714.245	0.001	0.053	-0.155	
1	R1-5-B134	1017914.000	1893404.000	714.9	1017913.962	1893404.045	714.865	-0.038	0.045	-0.035	
1	R1-5-B135	1017767.900	1893397.000	714	1017767.897	1893397.027	713.303	-0.003	0.027	-0.697	
1	R1-5-B136	1017821.000	1893397.000	715	1017821.040	1893397.058	714.901	0.040	0.058	-0.099	
1	R1-5-B137	1017854.000	1893397.000	711.2	1017854.002	1893397.020	711.183	0.002	0.020	-0.017	
1	R1-5-B138	1017903.000	1893397.000	713.6	1017902.985	1893397.000	713.511	-0.015	0.000	-0.089	
1	R1-5-B139	1017911.000	1893397.000	714.9	1017911.017	1893396.954	714.531	0.017	-0.046	-0.369	
1	R1-5-B14	1017818.000	1893618.000	713.7	1017818.033	1893618.107	713.245	0.033	0.107	-0.455	
1	R1-5-B140	1017919.000	1893397.000	714.9	1017918.993	1893397.027	714.726	-0.007	0.027	-0.174	
1	R1-5-B141	1017907.500	1893391.000	713.9	1017907.486	1893391.007	713.820	-0.014	0.007	-0.080	
1	R1-5-B142	1017911.500	1893391.000	713.9	1017911.554	1893391.009	713.862	0.054	0.009	-0.038	
1	R1-5-B143	1017827.500	1893390.500	714.3	1017827.540	1893390.562	714.124	0.040	0.062	-0.176	
1	R1-5-B144	1017844.000	1893390.500	711.6	1017844.024	1893390.543	711.389	0.024	0.043	-0.211	
1	R1-5-B145	1017767.100	1893384.000	714.6	1017767.062	1893383.994	713.913	-0.038	-0.006	-0.687	
1	R1-5-B146	1017850.500	1893383.500	711.6	1017850.457	1893383.479	711.476	-0.043	-0.021	-0.124	
1	R1-5-B147	1017867.500	1893383.000	709.9	1017867.556	1893383.054	709.723	0.056	0.054	-0.177	
1	R1-5-B148	1017920.000	1893383.000	714.5	1017920.079	1893383.014	713.816	0.079	0.014	-0.684	
1	R1-5-B149	1017890.500	1893374.500	712.2	1017890.477	1893374.560	712.115	-0.023	0.060	-0.085	
1	R1-5-B15	1017792.000	1893613.500	710.1	1017792.090	1893613.517	710.082	0.090	0.017	-0.018	
1	R1-5-B150	1017899.000	1893374.500	713.4	1017898.949	1893374.587	713.303	-0.051	0.087	-0.097	
1	R1-5-B151	1017769.300	1893373.000	714.6	1017769.285	1893373.069	713.867	-0.015	0.069	-0.733	
1	R1-5-B152	1017923.500	1893369.000	713.3	1017923.564	1893368.900	713.016	0.064	-0.100	-0.284	
1	R1-5-B153	1017781.000	1893366.000	713	1017781.041	1893366.049	712.803	0.041	0.049	-0.197	
1	R1-5-B154	1017848.000	1893366.000	712.4	1017847.987	1893366.000	712.332	-0.013	0.000	-0.068	
1	R1-5-B155	1017864.500	1893366.000	711.8	1017864.460	1893366.096	711.665	-0.040	0.096	-0.135	
1	R1-5-B156	1017881.000	1893366.000	709.9	1017881.064	1893365.944	709.859	0.064	-0.056	-0.041	
1	R1-5-B157	1017897.500	1893366.000	712.4	1017897.458	1893365.989	712.259	-0.042	-0.011	-0.141	
1	R1-5-B158	1017931.000	1893366.000	713.3	1017931.047	1893365.977	713.099	0.047	-0.023	-0.201	
1	R1-5-B159	1017787.000	1893358.500	713	1017787.095	1893358.502	712.733	0.095	0.002	-0.267	
1	R1-5-B16	1017838.000	1893611.500	711.4	1017837.943	1893611.522	711.354	-0.057	0.022	-0.046	
1	R1-5-B160	1017803.000	1893358.500	712.8	1017802.902	1893358.478	712.658	-0.098	-0.022	-0.142	
1	R1-5-B161	1017852.500	1893358.500	712.6	1017852.451	1893358.604	712.370	-0.049	0.104	-0.230	
1	R1-5-B162	1017881.000	1893358.000	710.9	1017881.015	1893358.014	710.788	0.015	0.014	-0.112	
1	R1-5-B163	1017889.500	1893358.000	711.1	1017889.490	1893357.943	711.061	-0.010	-0.057	-0.039	

Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B164	1017869.000	1893353.500	710.9	1017868.999	1893353.518	710.891	-0.001	0.018	-0.009	
1	R1-5-B165	1017807.500	1893351.000	713.3	1017807.491	1893351.044	713.298	-0.009	0.044	-0.002	
1	R1-5-B166	1017943.500	1893350.500	713.8	1017943.468	1893350.572	713.495	-0.032	0.072	-0.305	
1	R1-5-B167	1017860.500	1893348.500	712.7	1017860.515	1893348.416	712.481	0.015	-0.084	-0.219	
1	R1-5-B168	1017799.000	1893337.000	714	1017798.974	1893336.956	713.965	-0.026	-0.044	-0.035	
1	R1-5-B169	1017947.500	1893334.000	713.6	1017947.481	1893334.077	713.083	-0.019	0.077	-0.517	
1	R1-5-B17	1017772.100	1893611.000	713.2	1017772.149	1893610.992	713.038	0.049	-0.008	-0.162	
1	R1-5-B170	1017834.500	1893333.000	713.3	1017834.505	1893332.984	713.258	0.005	-0.016	-0.042	
1	R1-5-B171	1017818.000	1893332.500	714	1017818.021	1893332.501	713.968	0.021	0.001	-0.032	
1	R1-5-B172	1017801.500	1893331.000	714	1017801.496	1893331.028	713.770	-0.004	0.028	-0.230	
1	R1-5-B173	1017947.500	1893325.500	713.6	1017947.364	1893325.512	713.163	-0.136	0.012	-0.437	
1	R1-5-B174	1017840.500	1893321.000	714.3	1017840.487	1893321.018	714.227	-0.013	0.018	-0.073	
1	R1-5-B175	1017815.500	1893318.000	714.1	1017815.512	1893317.941	713.888	0.012	-0.059	-0.212	
1	R1-5-B176	1017894.000	1893317.500	711.1	1017894.081	1893317.498	710.949	0.081	-0.002	-0.151	
1	R1-5-B177	1017881.000	1893313.000	710.3	1017880.994	1893312.971	710.266	-0.006	-0.029	-0.034	
1	R1-5-B178	1017971.000	1893309.000	714.4	1017971.013	1893309.087	714.321	0.013	0.087	-0.079	
1	R1-5-B179	1017846.500	1893308.500	714.4	1017846.483	1893308.483	714.216	-0.017	-0.017	-0.184	
1	R1-5-B18	1017811.000	1893611.000	710.9	1017811.014	1893611.016	710.803	0.014	0.016	-0.097	
1	R1-5-B180	1017810.000	1893308.000	714.1	1017809.981	1893307.997	714.098	-0.019	-0.003	-0.002	
1	R1-5-B181	1017943.500	1893306.000	712.9	1017943.598	1893306.010	712.477	0.098	0.010	-0.423	
1	R1-5-B182	1017830.500	1893303.500	714.3	1017830.440	1893303.479	713.895	-0.060	-0.021	-0.405	
1	R1-5-B183	1017849.000	1893303.000	714.3	1017849.003	1893303.011	714.226	0.003	0.011	-0.074	
1	R1-5-B184	1017905.000	1893301.000	710.2	1017905.038	1893300.976	710.078	0.038	-0.024	-0.122	
1	R1-5-B185	1017973.500	1893301.000	714.4	1017973.561	1893300.966	714.384	0.061	-0.034	-0.016	
1	R1-5-B186	1017814.000	1893299.500	714.1	1017814.032	1893299.504	714.030	0.032	0.004	-0.070	
1	R1-5-B187	1017895.500	1893298.500	712.9	1017895.469	1893298.560	712.283	-0.031	0.060	-0.617	
1	R1-5-B188	1017902.500	1893293.000	710.5	1017902.474	1893292.976	710.409	-0.026	-0.024	-0.091	
1	R1-5-B189	1017843.500	1893281.000	714.3	1017843.484	1893280.994	714.104	-0.016	-0.006	-0.196	
1	R1-5-B19	1017861.000	1893611.000	713.4	1017861.016	1893611.011	713.325	0.016	0.011	-0.075	
1	R1-5-B190	1017962.000	1893280.000	710.2	1017962.119	1893279.962	710.185	0.119	-0.038	-0.015	
1	R1-5-B191	1017865.500	1893272.000	713.2	1017865.489	1893271.999	713.192	-0.011	-0.001	-0.008	
1	R1-5-B192	1017970.000	1893271.500	713.9	1017969.851	1893271.494	713.828	-0.149	-0.006	-0.072	
1	R1-5-B193	1017933.000	1893261.500	710.6	1017932.959	1893261.429	710.523	-0.041	-0.071	-0.077	
1	R1-5-B194	1017978.500	1893261.000	713.9	1017978.414	1893260.987	713.843	-0.086	-0.013	-0.057	
1	R1-5-B195	1017865.000	1893256.000	713.8	1017865.050	1893256.025	713.554	0.050	0.025	-0.246	
1	R1-5-B196	1017937.000	1893253.500	709.3	1017937.031	1893253.434	709.288	0.031	-0.066	-0.012	
1	R1-5-B197	1017917.500	1893251.000	711.4	1017917.560	1893250.992	711.309	0.060	-0.008	-0.091	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red

**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 1 Section R1-5**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B198	1017865.000	1893250.000	713.8	1017865.027	1893250.006	713.691	0.027	0.006	-0.109	
1	R1-5-B199	1017950.500	1893246.500	709.3	1017950.522	1893246.488	709.284	0.022	-0.012	-0.016	
1	R1-5-B2	1017801.500	1893640.500	712.7	1017801.560	1893640.511	712.500	0.060	0.011	-0.200	
1	R1-5-B20	1017832.500	1893606.500	710	1017832.493	1893606.413	709.980	-0.007	-0.087	-0.020	
1	R1-5-B200	1017991.000	1893246.500	712.8	1017991.009	1893246.503	712.647	0.009	0.003	-0.153	
1	R1-5-B201	1017930.000	1893242.000	710.4	1017930.020	1893241.946	710.376	0.020	-0.054	-0.024	
1	R1-5-B202	1017962.500	1893238.000	712	1017962.441	1893237.995	711.986	-0.059	-0.005	-0.014	
1	R1-5-B203	1018009.900	1893237.500	715.1	1018009.824	1893237.531	715.036	-0.076	0.031	-0.064	
1	R1-5-B204	1017946.500	1893237.000	711.8	1017946.542	1893236.983	711.719	0.042	-0.017	-0.081	
1	R1-5-B205	1018026.100	1893236.200	716.4	1018026.155	1893236.189	716.079	0.055	-0.011	-0.321	
1	R1-5-B206	1018031.500	1893236.000	716.4	1018031.476	1893236.029	716.180	-0.024	0.029	-0.220	
1	R1-5-B207	1017867.000	1893235.500	713.9	1017867.030	1893235.490	713.452	0.030	-0.010	-0.448	
1	R1-5-B208	1017883.500	1893235.500	713.3	1017883.474	1893235.511	713.062	-0.026	0.011	-0.238	
1	R1-5-B209	1018029.900	1893232.000	716.4	1018029.855	1893232.006	716.256	-0.045	0.006	-0.144	
1	R1-5-B21	1017815.500	1893606.000	707.5	1017815.549	1893606.007	707.335	0.049	0.007	-0.165	
1	R1-5-B210	1018015.700	1893231.200	715.1	1018015.766	1893231.168	715.019	0.066	-0.032	-0.081	
1	R1-5-B211	1018018.000	1893230.600	715.1	1018017.985	1893230.613	715.017	-0.015	0.013	-0.083	
1	R1-5-B212	1017879.000	1893226.000	713.7	1017878.961	1893225.990	713.175	-0.039	-0.010	-0.525	
1	R1-5-B213	1018017.700	1893224.400	716	1018017.721	1893224.327	715.816	0.021	-0.073	-0.184	
1	R1-5-B214	1017965.500	1893223.500	711.3	1017965.513	1893223.558	711.177	0.013	0.058	-0.123	
1	R1-5-B215	1017999.500	1893222.000	715.6	1017999.574	1893222.009	714.808	0.074	0.009	-0.792	
1	R1-5-B216	1017951.000	1893221.500	711.4	1017951.005	1893221.457	711.399	0.005	-0.043	-0.001	
1	R1-5-B217	1017879.000	1893218.000	712.2	1017878.983	1893218.011	712.058	-0.017	0.011	-0.142	
1	R1-5-B218	1018014.100	1893216.800	716	1018014.132	1893216.798	715.931	0.032	-0.002	-0.069	
1	R1-5-B219	1017960.500	1893215.000	709.6	1017960.398	1893214.992	709.559	-0.102	-0.008	-0.041	
1	R1-5-B22	1017865.500	1893606.000	711.8	1017865.505	1893605.954	711.495	0.005	-0.046	-0.305	
1	R1-5-B220	1018001.500	1893214.500	713.4	1018001.550	1893214.507	713.328	0.050	0.007	-0.072	
1	R1-5-B221	1018021.200	1893213.400	716	1018021.169	1893213.388	715.962	-0.031	-0.012	-0.038	
1	R1-5-B222	1018009.100	1893211.400	714.2	1018009.115	1893211.361	714.138	0.015	-0.039	-0.062	
1	R1-5-B223	1017871.000	1893206.500	714.1	1017870.940	1893206.480	713.850	-0.060	-0.020	-0.250	
1	R1-5-B224	1017875.000	1893206.500	714.1	1017874.958	1893206.432	713.767	-0.042	-0.068	-0.333	
1	R1-5-B225	1017853.500	1893198.500	715.3	1017853.403	1893198.494	714.913	-0.097	-0.006	-0.387	
1	R1-5-B226	1017862.000	1893198.500	714	1017862.138	1893198.460	713.771	0.138	-0.040	-0.229	
1	R1-5-B227	1018011.200	1893197.900	715.4	1018011.136	1893197.860	715.355	-0.064	-0.040	-0.045	
1	R1-5-B228	1017973.000	1893197.500	711.5	1017972.966	1893197.578	711.173	-0.034	0.078	-0.327	
1	R1-5-B229	1017853.500	1893195.000	715.3	1017853.462	1893194.985	714.857	-0.038	-0.015	-0.443	
1	R1-5-B23	1017885.500	1893606.000	715.3	1017885.390	1893605.978	715.275	-0.110	-0.022	-0.025	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B230	1017854.000	1893192.000	715.3	1017853.960	1893191.999	714.844	-0.040	-0.001	-0.456	
1	R1-5-B231	1017862.000	1893192.000	714	1017861.897	1893192.063	713.877	-0.103	0.063	-0.123	
1	R1-5-B232	1017961.000	1893189.000	710	1017961.012	1893189.062	709.982	0.012	0.062	-0.018	
1	R1-5-B233	1017976.500	1893187.500	710.7	1017976.486	1893187.550	710.651	-0.014	0.050	-0.049	
1	R1-5-B234	1018021.200	1893183.000	713.2	1018021.182	1893183.016	713.077	-0.018	0.016	-0.123	
1	R1-5-B235	1017862.000	1893181.000	714.4	1017862.072	1893181.051	714.007	0.072	0.051	-0.393	
1	R1-5-B236	1017868.000	1893176.500	714.4	1017868.024	1893176.463	714.146	0.024	-0.037	-0.254	
1	R1-5-B237	1017894.800	1893176.500	711.8	1017894.892	1893176.513	711.684	0.092	0.013	-0.116	
1	R1-5-B238	1017985.500	1893175.500	711.5	1017985.500	1893175.473	711.389	0.000	-0.027	-0.111	
1	R1-5-B239	1017972.000	1893175.000	709.5	1017971.963	1893174.949	709.472	-0.037	-0.051	-0.028	
1	R1-5-B24	1017888.000	1893606.000	715.9	1017887.934	1893606.033	715.675	-0.066	0.033	-0.225	
1	R1-5-B240	1018021.800	1893171.900	715	1018021.857	1893171.882	714.898	0.057	-0.018	-0.102	
1	R1-5-B241	1017990.500	1893166.500	711.5	1017990.489	1893166.486	711.484	-0.011	-0.014	-0.016	
1	R1-5-B242	1018021.500	1893163.700	713.2	1018021.555	1893163.673	713.145	0.055	-0.027	-0.055	
1	R1-5-B243	1017981.500	1893161.000	709.3	1017981.540	1893160.936	709.213	0.040	-0.064	-0.087	
1	R1-5-B244	1018028.800	1893145.000	714.8	1018028.729	1893144.995	714.570	-0.071	-0.005	-0.230	
1	R1-5-B245	1017976.000	1893139.000	709.6	1017975.903	1893139.018	709.517	-0.097	0.018	-0.083	
1	R1-5-B246	1017991.500	1893139.000	710.2	1017991.552	1893138.938	710.022	0.052	-0.062	-0.178	
1	R1-5-B247	1017977.000	1893131.000	709.6	1017977.000	1893131.024	709.580	0.000	0.024	-0.020	
1	R1-5-B248	1018029.000	1893118.000	716.5	1018029.042	1893118.029	716.408	0.042	0.029	-0.092	
1	R1-5-B249	1017991.500	1893116.000	713.5	1017991.433	1893115.966	712.157	-0.067	-0.034	-1.343	Point was surveyed at existing ground surface
1	R1-5-B25	1017771.500	1893601.000	704.2	1017771.497	1893601.058	704.187	-0.003	0.058	-0.013	
1	R1-5-B250	1017974.500	1893113.000	709	1017974.410	1893113.142	708.697	-0.090	0.142	-0.303	
1	R1-5-B251	1017875.200	1893107.800	716.7	1017875.232	1893107.824	716.589	0.032	0.024	-0.111	
1	R1-5-B252	1018033.800	1893104.000	714.1	1018033.725	1893104.021	713.947	-0.075	0.021	-0.153	
1	R1-5-B253	1017994.000	1893101.000	713.3	1017994.043	1893101.084	713.115	0.043	0.084	-0.185	
1	R1-5-B254	1017978.000	1893098.000	711.5	1017978.047	1893097.932	711.404	0.047	-0.068	-0.096	
1	R1-5-B255	1018022.500	1893094.500	715.5	1018022.480	1893094.487	715.458	-0.020	-0.013	-0.042	
1	R1-5-B256	1018037.200	1893094.400	715.7	1018037.262	1893094.371	715.498	0.062	-0.029	-0.202	
1	R1-5-B257	1017994.000	1893091.500	712.8	1017994.015	1893091.539	712.663	0.015	0.039	-0.137	
1	R1-5-B258	1018023.000	1893085.000	715.5	1018022.981	1893085.058	715.495	-0.019	0.058	-0.005	
1	R1-5-B259	1018031.000	1893085.000	715.7	1018030.987	1893085.061	715.556	-0.013	0.061	-0.144	
1	R1-5-B26	1017892.500	1893601.000	715.9	1017892.516	1893601.059	715.466	0.016	0.059	-0.434	
1	R1-5-B260	1018023.500	1893077.500	713.5	1018023.590	1893077.507	713.459	0.090	0.007	-0.041	
1	R1-5-B261	1018027.500	1893077.500	713.5	1018027.509	1893077.476	713.481	0.009	-0.024	-0.019	
1	R1-5-B262	1017995.000	1893076.500	711.1	1017994.993	1893076.532	711.066	-0.007	0.032	-0.034	
1	R1-5-B263	1018033.800	1893076.300	713.5	1018033.750	1893076.249	713.464	-0.050	-0.051	-0.036	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

### Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B264	1017897.000	1893071.000	711.3	1017896.996	1893070.940	711.221	-0.004	-0.060	-0.079	
1	R1-5-B265	1017993.000	1893068.000	711.1	1017992.910	1893067.961	711.006	-0.090	-0.039	-0.094	
1	R1-5-B266	1017910.000	1893067.500	709.1	1017910.028	1893067.455	709.094	0.028	-0.045	-0.006	
1	R1-5-B267	1018006.000	1893067.000	711.8	1018005.985	1893067.014	711.707	-0.015	0.014	-0.093	
1	R1-5-B268	1017898.500	1893066.000	715.7	1017898.332	1893065.939	715.503	-0.168	-0.061	-0.197	
1	R1-5-B269	1017897.000	1893064.000	715.7	1017896.852	1893064.079	715.677	-0.148	0.079	-0.023	
1	R1-5-B27	1017822.000	1893597.500	710.1	1017821.921	1893597.506	707.824	-0.079	0.006	-2.276	Excavated deeper to remove sludge layer
1	R1-5-B270	1017892.400	1893063.800	715.7	1017892.611	1893064.755	715.690	0.211	0.955	-0.010	Excavated to plastic barrier
1	R1-5-B271	1017999.000	1893060.000	710.5	1017998.903	1893060.069	710.427	-0.097	0.069	-0.073	
1	R1-5-B272	1017925.500	1893052.000	710.2	1017925.427	1893052.013	710.148	-0.073	0.013	-0.052	
1	R1-5-B273	1018031.300	1893052.000	709.2	1018031.228	1893052.004	709.164	-0.072	0.004	-0.036	
1	R1-5-B274	1017921.500	1893039.000	711	1017921.574	1893038.874	710.821	0.074	-0.126	-0.179	
1	R1-5-B275	1017918.200	1893029.300	709.3	1017918.264	1893029.358	709.226	0.064	0.058	-0.074	
1	R1-5-B276	1017932.900	1893012.900	709.3	1017932.860	1893012.870	709.238	-0.040	-0.030	-0.062	
1	R1-5-B277	1018043.700	1893011.000	710.3	1018043.720	1893010.970	710.080	0.020	-0.030	-0.220	
1	R1-5-B278	1018014.200	1893009.600	711.9	1018013.047	1893013.081	711.830	-1.153	3.481	-0.070	Excavated to culvert edge
1	R1-5-B279	1018002.000	1893001.800	710.7	1017997.297	1893003.940	710.684	-4.703	2.140	-0.016	Excavated to culvert edge
1	R1-5-B28	1017801.000	1893597.000	706.8	1017800.967	1893596.928	703.953	-0.033	-0.072	-2.847	Excavated deeper to remove sludge layer
1	R1-5-B280	1018020.200	1892999.300	711.9	1018021.550	1892999.780	711.760	1.350	0.480	-0.140	Excavated to culvert edge
1	R1-5-B281	1018008.400	1892991.900	710.7	1018005.097	1892988.358	710.558	-3.303	-3.542	-0.142	Excavated to culvert edge
1	R1-5-B282	1017942.300	1892988.400	712.7	1017942.337	1892988.444	712.561	0.037	0.044	-0.139	
1	R1-5-B283	1017960.000	1892987.000	711.4	1017959.975	1892987.018	711.263	-0.025	0.018	-0.137	
1	R1-5-B284	1017970.000	1892981.000	715.2	1017970.028	1892981.086	715.070	0.028	0.086	-0.130	
1	R1-5-B285	1017978.200	1892970.300	711.3	1017978.204	1892970.250	711.232	0.004	-0.050	-0.068	
1	R1-5-B29	1017771.300	1893596.800	704.2	1017771.325	1893596.925	704.176	0.025	0.125	-0.024	
1	R1-5-B3	1017821.500	1893640.500	715.2	1017821.490	1893640.385	715.121	-0.010	-0.115	-0.079	
1	R1-5-B30	1017781.200	1893596.000	704.2	1017781.337	1893595.927	704.075	0.137	-0.073	-0.125	
1	R1-5-B31	1017826.500	1893594.500	703.5	1017826.508	1893594.474	703.468	0.008	-0.026	-0.032	
1	R1-5-B32	1017841.500	1893594.500	702.3	1017841.509	1893594.480	702.037	0.009	-0.020	-0.263	
1	R1-5-B33	1017851.500	1893594.500	710.4	1017851.567	1893594.577	710.367	0.067	0.077	-0.033	
1	R1-5-B34	1017802.500	1893590.500	705.3	1017802.486	1893590.443	702.960	-0.014	-0.057	-2.340	Excavated deeper to remove sludge layer
1	R1-5-B35	1017807.500	1893590.500	703.7	1017807.627	1893590.482	702.824	0.127	-0.018	-0.876	Excavated deeper to remove sludge layer
1	R1-5-B36	1017780.800	1893588.000	705.7	1017780.746	1893588.042	705.382	-0.054	0.042	-0.318	Excavated deeper to remove sludge layer
1	R1-5-B37	1017813.000	1893588.000	703.7	1017813.004	1893588.017	703.356	0.004	0.017	-0.344	Excavated deeper to remove sludge layer
1	R1-5-B38	1017843.000	1893588.000	702.3	1017842.956	1893587.900	702.153	-0.044	-0.100	-0.147	
1	R1-5-B39	1017903.000	1893588.000	715.2	1017903.004	1893587.871	714.840	0.004	-0.129	-0.360	
1	R1-5-B4	1017841.500	1893640.500	715.6	1017841.547	1893640.565	715.575	0.047	0.065	-0.025	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Targeted Material

## Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B40	1017819.500	1893582.500	707.1	1017819.475	1893582.510	705.782	-0.025	0.010	-1.318	Excavated deeper to remove sludge layer
1	R1-5-B41	1017829.500	1893582.500	703.5	1017829.555	1893582.462	703.475	0.055	-0.038	-0.025	
1	R1-5-B42	1017839.500	1893582.500	702.3	1017839.372	1893582.572	702.181	-0.128	0.072	-0.119	
1	R1-5-B43	1017791.700	1893581.800	709.1	1017791.744	1893581.749	708.734	0.044	-0.051	-0.366	
1	R1-5-B44	1017770.300	1893580.000	706.8	1017770.312	1893580.053	706.401	0.012	0.053	-0.399	
1	R1-5-B45	1017780.300	1893579.700	706.8	1017780.306	1893579.746	706.792	0.006	0.046	-0.008	
1	R1-5-B46	1017770.200	1893577.000	706.8	1017770.181	1893576.932	706.741	-0.019	-0.068	-0.059	
1	R1-5-B47	1017908.500	1893577.000	715.3	1017908.533	1893576.965	714.952	0.033	-0.035	-0.348	
1	R1-5-B48	1017784.600	1893576.500	706.8	1017784.544	1893576.551	706.723	-0.056	0.051	-0.077	
1	R1-5-B49	1017855.500	1893576.500	712.1	1017855.489	1893576.494	711.842	-0.011	-0.006	-0.258	
1	R1-5-B5	1017796.000	1893637.000	712.7	1017795.960	1893637.069	712.577	-0.040	0.069	-0.123	
1	R1-5-B50	1017769.900	1893571.500	715.3	1017769.840	1893571.446	713.917	-0.060	-0.054	-1.383	
1	R1-5-B51	1017813.000	1893569.500	706.2	1017813.098	1893569.561	705.947	0.098	0.061	-0.253	
1	R1-5-B52	1017823.500	1893567.000	711	1017823.493	1893566.911	710.591	-0.007	-0.089	-0.409	
1	R1-5-B53	1017771.100	1893566.000	715.3	1017771.096	1893565.968	713.640	-0.004	-0.032	-1.660	
1	R1-5-B54	1017790.200	1893566.000	711.1	1017790.255	1893566.046	710.593	0.055	0.046	-0.507	
1	R1-5-B55	1017851.000	1893566.000	711.9	1017850.960	1893565.971	711.890	-0.040	-0.029	-0.010	
1	R1-5-B56	1017908.500	1893566.000	714.3	1017908.519	1893566.008	714.150	0.019	0.008	-0.150	
1	R1-5-B57	1017800.700	1893565.300	707.4	1017800.696	1893565.210	707.320	-0.004	-0.090	-0.080	
1	R1-5-B58	1017811.500	1893560.000	711.3	1017811.579	1893560.002	711.237	0.079	0.002	-0.063	
1	R1-5-B59	1017831.000	1893560.000	711.5	1017830.955	1893559.913	711.394	-0.045	-0.087	-0.106	
1	R1-5-B6	1017844.500	1893637.000	715.6	1017844.587	1893637.110	715.576	0.087	0.110	-0.024	
1	R1-5-B60	1017846.000	1893560.000	711.9	1017845.990	1893560.052	711.795	-0.010	0.052	-0.105	
1	R1-5-B61	1017792.000	1893559.900	713.5	1017791.945	1893559.877	713.281	-0.055	-0.023	-0.219	
1	R1-5-B62	1017798.600	1893559.600	711.8	1017798.520	1893559.547	711.779	-0.080	-0.053	-0.021	
1	R1-5-B63	1017773.600	1893554.000	713.9	1017773.589	1893553.963	713.429	-0.011	-0.037	-0.471	
1	R1-5-B64	1017918.500	1893554.000	714.7	1017918.509	1893554.005	714.191	0.009	0.005	-0.509	
1	R1-5-B65	1017776.200	1893542.000	713.4	1017776.151	1893541.994	713.293	-0.049	-0.006	-0.107	
1	R1-5-B66	1017923.500	1893542.000	714.6	1017923.505	1893542.091	714.550	0.005	0.091	-0.050	
1	R1-5-B67	1017796.500	1893536.000	712.7	1017796.447	1893535.971	712.667	-0.053	-0.029	-0.033	
1	R1-5-B68	1017775.500	1893530.000	714	1017775.432	1893530.056	713.940	-0.068	0.056	-0.060	
1	R1-5-B69	1017785.500	1893530.000	714	1017785.436	1893530.000	713.878	-0.064	0.000	-0.122	
1	R1-5-B7	1017803.000	1893631.000	712.7	1017803.063	1893630.977	712.679	0.063	-0.023	-0.021	
1	R1-5-B70	1017801.000	1893530.000	713.6	1017801.001	1893530.095	713.362	0.001	0.095	-0.238	
1	R1-5-B71	1017915.500	1893530.000	713.9	1017915.526	1893530.050	713.742	0.026	0.050	-0.158	
1	R1-5-B72	1017789.500	1893523.500	712.9	1017789.429	1893523.556	712.846	-0.071	0.056	-0.054	
1	R1-5-B73	1017802.500	1893523.500	712.1	1017802.428	1893523.451	711.923	-0.072	-0.049	-0.177	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 1 Section R1-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-5-B74	1017854.500	1893523.500	710.9	1017854.438	1893523.491	710.822	-0.062	-0.009	-0.078	
1	R1-5-B75	1017859.500	1893523.500	711.7	1017859.586	1893523.561	711.644	0.086	0.061	-0.056	
1	R1-5-B76	1017774.700	1893517.000	713.8	1017774.655	1893517.084	713.577	-0.045	0.084	-0.223	
1	R1-5-B77	1017921.000	1893517.000	713	1017921.053	1893517.002	712.712	0.053	0.002	-0.288	
1	R1-5-B78	1017851.500	1893511.500	710.3	1017851.501	1893511.489	710.276	0.001	-0.011	-0.024	
1	R1-5-B79	1017861.500	1893511.500	713.6	1017861.514	1893511.395	713.388	0.014	-0.105	-0.212	
1	R1-5-B8	1017812.000	1893625.000	713.7	1017812.011	1893625.042	713.653	0.011	0.042	-0.047	
1	R1-5-B80	1017915.000	1893506.000	713.2	1017915.027	1893505.996	712.941	0.027	-0.004	-0.259	
1	R1-5-B81	1017774.000	1893505.400	714.1	1017773.923	1893505.411	713.888	-0.077	0.011	-0.212	
1	R1-5-B82	1017792.500	1893501.500	713.6	1017792.507	1893501.623	713.473	0.007	0.123	-0.127	
1	R1-5-B83	1017851.500	1893501.500	710.3	1017851.497	1893501.547	710.175	-0.003	0.047	-0.125	
1	R1-5-B84	1017861.500	1893501.500	710.7	1017861.467	1893501.467	710.671	-0.033	-0.033	-0.029	
1	R1-5-B85	1017783.500	1893501.000	714.1	1017783.629	1893500.990	713.672	0.129	-0.010	-0.428	
1	R1-5-B86	1017773.600	1893497.000	713.7	1017773.641	1893497.016	713.587	0.041	0.016	-0.113	
1	R1-5-B87	1017791.000	1893497.000	713.6	1017791.016	1893496.898	713.481	0.016	-0.102	-0.119	
1	R1-5-B88	1017911.000	1893497.000	712.9	1017910.985	1893496.990	712.537	-0.015	-0.010	-0.363	
1	R1-5-B89	1017792.800	1893493.200	713.6	1017792.842	1893493.204	713.427	0.042	0.004	-0.173	
1	R1-5-B9	1017845.000	1893625.000	714.4	1017845.062	1893625.063	714.340	0.062	0.063	-0.060	
1	R1-5-B90	1017779.500	1893493.000	713.8	1017779.376	1893492.914	713.751	-0.124	-0.086	-0.049	
1	R1-5-B91	1017853.500	1893492.500	710.6	1017853.525	1893492.439	710.518	0.025	-0.061	-0.082	
1	R1-5-B92	1017858.500	1893492.500	710.6	1017858.577	1893492.470	710.497	0.077	-0.030	-0.103	
1	R1-5-B93	1017773.100	1893489.000	714.1	1017773.071	1893489.060	713.996	-0.029	0.060	-0.104	
1	R1-5-B94	1017916.000	1893488.000	714.3	1017915.889	1893488.084	714.097	-0.111	0.084	-0.203	
1	R1-5-B95	1017835.500	1893481.500	711.6	1017835.404	1893481.484	711.373	-0.096	-0.016	-0.227	
1	R1-5-B96	1017845.500	1893481.000	710.6	1017845.557	1893481.002	710.562	0.057	0.002	-0.038	
1	R1-5-B97	1017766.000	1893474.000	717.8	1017766.032	1893474.079	717.121	0.032	0.079	-0.679	
1	R1-5-B98	1017831.500	1893474.000	711.2	1017831.485	1893473.994	711.107	-0.015	-0.006	-0.093	
1	R1-5-B99	1017848.000	1893474.000	712	1017848.040	1893473.982	711.936	0.040	-0.018	-0.064	
1	R1-5-V1b	1017899.100	1893273.800	712.1	1017899.082	1893273.776	712.072	-0.018	-0.024	-0.028	
1	R1-5-V2b	1017960.600	1893251.900	712.1	1017960.601	1893251.883	711.905	0.001	-0.017	-0.195	
1	R1-5-V3b	1018019.100	1893020.100	710.5	1018019.072	1893020.090	710.414	-0.028	-0.010	-0.086	
1	R1-5-V4b	1017966.100	1893011.900	711.5	1017966.163	1893011.959	711.460	0.063	0.059	-0.040	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red



8/4/2008

Survey Instrument: Trimble S6  
Environmental Scientist: Amy Ruta / Jerry Krane  
Geologist: Dan Ryan

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 1 Section R1-6

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-6-1725b	1017788.000	1893247.000	718.8	1017788.020	1893246.999	718.399	0.020	-0.001	-0.401	
1	R1-6-B1	1017788.500	1893252.500	718.8	1017788.461	1893252.498	718.505	-0.039	-0.002	-0.295	
1	R1-6-B2	1017781.500	1893249.500	718.8	1017781.481	1893249.441	718.764	-0.019	-0.059	-0.036	
1	R1-6-B3	1017795.500	1893248.500	718.8	1017795.448	1893248.459	718.304	-0.052	-0.041	-0.496	
1	R1-6-B4	1017792.500	1893245.500	718.8	1017792.404	1893245.549	718.748	-0.096	0.049	-0.052	
1	R1-6-B5	1017780.500	1893242.000	718.8	1017780.418	1893241.982	718.782	-0.082	-0.018	-0.018	
1	R1-6-B6	1017789.000	1893242.000	718.8	1017789.074	1893242.074	718.587	0.074	0.074	-0.213	

Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 1 Section R1-7

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-7-1704b	1017839.000	1893237.000	715	1017839.036	1893237.027	714.476	0.036	0.027	-0.524	
1	R1-7-B1	1017838.500	1893243.500	715	1017838.441	1893243.441	714.275	-0.059	-0.059	-0.725	
1	R1-7-B2	1017847.000	1893243.500	715	1017846.976	1893243.467	714.663	-0.024	-0.033	-0.337	
1	R1-7-B3	1017831.000	1893237.000	715	1017831.050	1893237.071	714.958	0.050	0.071	-0.042	
1	R1-7-B4	1017847.500	1893237.000	715	1017847.436	1893236.967	714.692	-0.064	-0.033	-0.308	
1	R1-7-B5	1017831.500	1893231.500	715	1017831.471	1893231.507	714.931	-0.029	0.007	-0.069	
1	R1-7-B6	1017840.000	1893231.500	715	1017840.011	1893231.498	714.859	0.011	-0.002	-0.141	

Δ Elevation < -0.25 ft Blue  
 Δ Elevation -0.25 to 0.0 ft Green  
 Δ Elevation > 0.0 ft Red

Δ Easting/Northing < or = 0.2 ft Green  
 Δ Easting/Northing > 0.2 ft Blue



8/4/2008

Survey Instrument: Trimble S6

Environmental Scientist: Amy Ruta / Jerry Krane

Geologist: Dan Ryan

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Targeted Material

Reach 1 Section R1-8

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-8-1699b	1017763.000	1893237.000	718	1017763.017	1893236.987	717.894	0.017	-0.013	-0.106	
1	R1-8-B1	1017763.000	1893241.500	718	1017762.998	1893241.459	717.809	-0.002	-0.041	-0.191	
1	R1-8-B2	1017759.200	1893239.800	718	1017759.196	1893239.764	717.947	-0.004	-0.036	-0.053	
1	R1-8-B3	1017768.000	1893237.000	718	1017768.017	1893236.964	717.960	0.017	-0.036	-0.040	
1	R1-8-B4	1017758.900	1893235.000	718	1017758.871	1893235.029	717.985	-0.029	0.029	-0.015	
1	R1-8-B5	1017769.500	1893231.500	718	1017769.520	1893231.541	717.959	0.020	0.041	-0.041	

Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 1 Section R1-9

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-9-1876b	1017900.000	1893036.000	715.9	1017900.085	1893035.966	715.735	0.085	-0.034	-0.165	
1	R1-9-B1	1017901.000	1893041.500	715.9	1017900.965	1893041.326	715.853	-0.035	-0.174	-0.047	
1	R1-9-B2	1017897.700	1893040.200	715.9	1017897.779	1893040.052	715.735	0.079	-0.148	-0.165	
1	R1-9-B3	1017905.000	1893037.000	715.9	1017904.900	1893036.926	715.843	-0.100	-0.074	-0.057	
1	R1-9-B4	1017899.400	1893034.600	715.9	1017899.408	1893034.646	715.754	0.008	0.046	-0.146	
1	R1-9-B5	1017902.800	1893033.300	715.9	1017902.764	1893033.473	715.771	-0.036	0.173	-0.129	

Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 1 Section R1-10

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
1	R1-10-101b	1017953.000	1892966.000	711.6	1017952.967	1892965.997	711.595	-0.033	-0.003	-0.005	
1	R1-10-B1	1017953.500	1892971.500	711.6	1017953.477	1892971.473	711.399	-0.023	-0.027	-0.201	
1	R1-10-B2	1017948.300	1892970.900	711.6	1017948.284	1892970.905	711.536	-0.016	0.005	-0.064	
1	R1-10-B3	1017956.000	1892968.500	711.6	1017955.913	1892968.582	711.597	-0.087	0.082	-0.003	
1	R1-10-B4	1017962.200	1892965.800	711.6	1017962.146	1892965.834	711.553	-0.054	0.034	-0.047	
1	R1-10-B5	1017947.000	1892965.500	711.6	1017947.037	1892965.503	711.593	0.037	0.003	-0.007	
1	R1-10-B6	1017955.000	1892961.500	711.6	1017954.885	1892961.548	711.579	-0.115	0.048	-0.021	
1	R1-10-B7	1017946.500	1892960.000	711.6	1017946.504	1892960.047	711.462	0.004	0.047	-0.138	

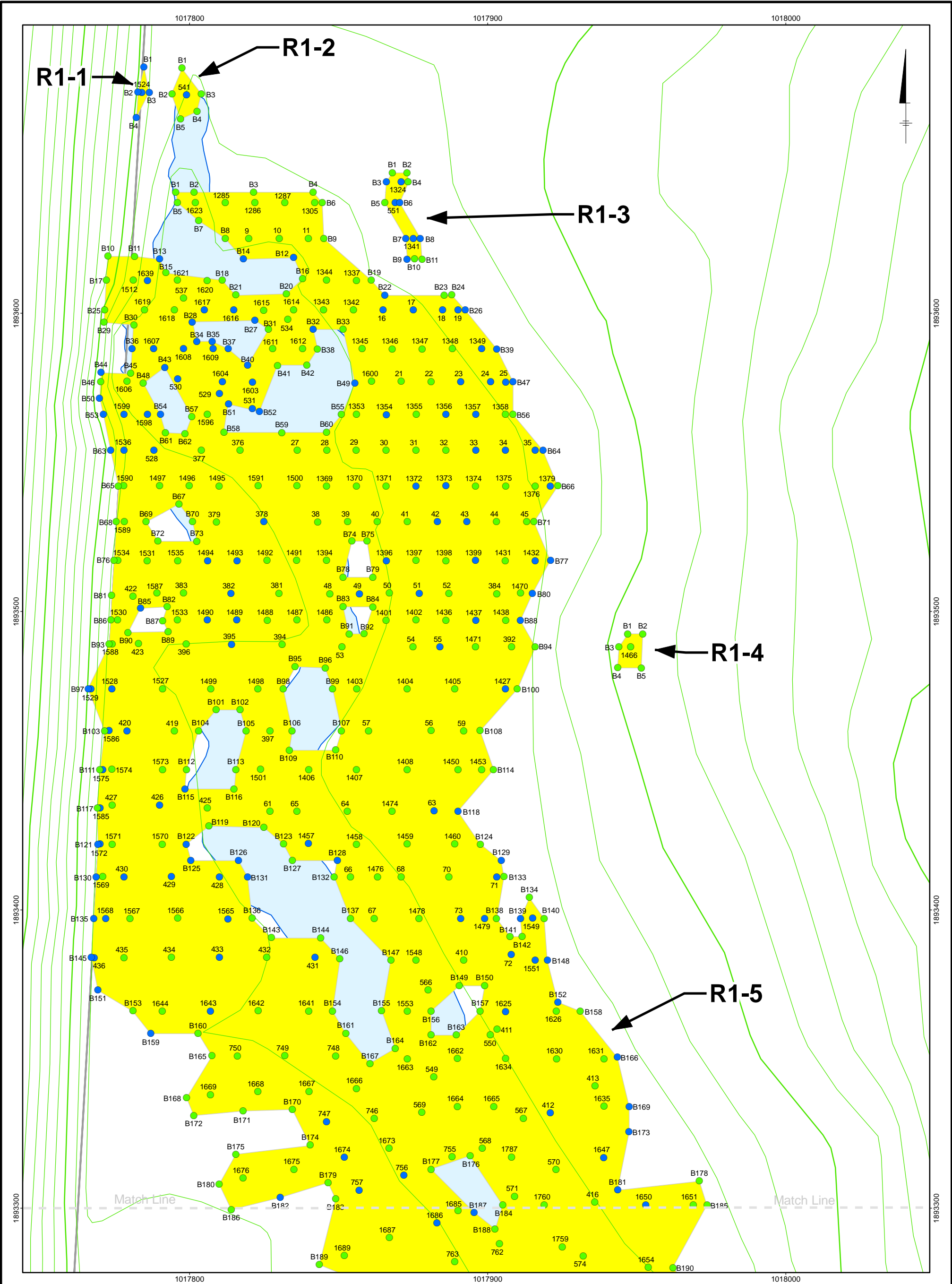
Δ Elevation < -0.25 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red



LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE

0 30 60 Feet

SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

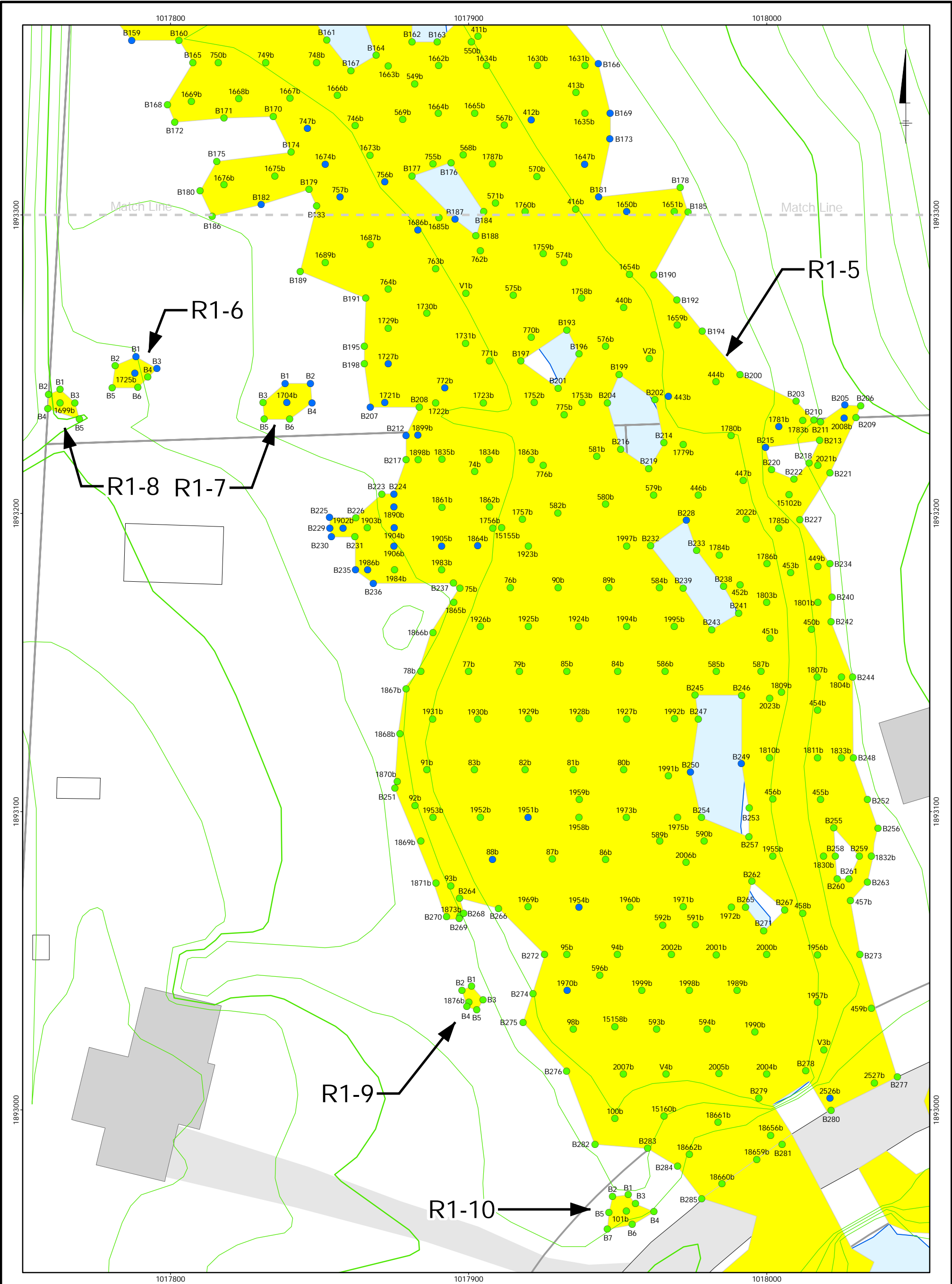
- > 0.00
- ≤ 0.00 to -0.25
- < -0.25

NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE
- DATUM: NAD 83
- UNITS: FEET

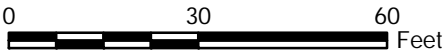
KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
**REMEDATION TRACKING SYSTEM**  
**GPS VERIFICATION POINTS**  
**BOTTOM OF TARGETED MATERIA**  
**REACH 1**





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE



SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.00
- ≤ 0.00 to -0.25
- < -0.25

NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE
- DATUM: NAD 83
- UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
REMEDATION TRACKING SYSTEM  
GPS VERIFICATION POINTS  
BOTTOM OF TARGETED MATERIAL  
REACH 1

Remedial Management & Construction

FIGURE  
2

## **Appendix E**

Notification of Successful GPS  
Verification Survey for the Bottoms  
of Overburden, Reach 2 – All  
Sections (R2-1 through R2-5)

*Transmitted Via E-Mail*

**KC 059**

December 22, 2005

Mr. Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, Illinois 60185

Re: **Notification of Successful GPS Verification Survey  
For the Bottom of Overburden**  
Reach 2 – All Sections  
Remedial Action at the Kress Creek Project, West Chicago, IL  
BBLES Project #: 71014.004

Dear Mark:

In accordance with Section 2.1.5.2 "Notification" in the Reach 2 Final Design/Remedial Action (FD/RA) Work Plan for the above referenced project, BBL Environmental Services, Inc. (BBLES) is pleased to notify Kerr-McGee, the USEPA RPM/OSC and the Local Communities' Representative that a successful GPS Verification Survey was performed for the **Bottom of Overburden** for the excavations for the entirety of Reach 2 at the Kress Creek Remedial Action Project in West Chicago (DuPage County), Illinois at the time and date noted below:

1. **This GPS Verification Survey Package issued on 12/22/05 includes in its entirety all of the Reach 2 overburden points achieved and documented in accordance with the Work Plan. These GPS verification points for bottom of overburden were previously distributed by a series of e-mails entitled "Kress Creek, Reach 2: GPS points achieved" from October 27, 2005 through December 15, 2005.**

Excavation Locations: Reach 2: Sections R2-1, R2-2, R2-3, R2-4 and R2-5.

Date of Verification: 12/22/05

Time of Verification: 3:30 PM CST

In accordance with Section 2.1.5.1 "Concurrent Verification" of the Reach 2 FD/RA Work Plan, BBLES sent an e-mail each Friday with a weekly schedule for the next week that listed the projected locations and dates where excavations and GPS verification surveys would be performed. BBLES sent those weekly

schedule e-mails to Rebecca Frey and Scott Hansen of USEPA, Richard Allen, Kelly Grahn and Steve Shafer of IEMA/DNS and John Wills of CBB West providing them the required 24 hour notice that the excavations and GPS verification surveys for the bottom of overburden material in the above listed areas would be completed during those weeks.

There are five (5) attached Tables (Excel) prepared by ProSource Technologies, Inc. (ProSource) entitled “Kress Creek/ West Branch of DuPage River Verification Points, Bottom of Overburden” for the five Reach 2 sections, and the tables list the design, actual and difference of the survey coordinates and elevations of the verification points located in the areas defined above under Excavation Locations

The attached maps (pdf) prepared by ProSource divide Reach 2 into Figure 1 which shows the northern portion of Reach 2, Figure 2 which shows the central portion of Reach 2, and Figure 3 which shows the southern portion of Reach 2. The maps present the excavation locations identified above, and denote the location of each of the verification points that have been verified.

The verification points listed in these attachments have been achieved and excavation of the targeted material in the specified excavation locations has proceeded in accordance with the prior preliminary verbal approval of these points based on the field monitoring of the regulators’ representatives. Documents pertaining to this survey are available for inspection at the BBLES/Sevenson construction office at Kerr-McGee’s REF Facility.

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

***Michael F. Savage***

Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Michael Logan, Kerr-McGee  
Frank Schultz, Kerr-McGee  
Steve Wallace, Kerr-McGee  
Jeffery Williams, Kerr-McGee  
Rebecca Frey, USEPA  
Richard Allen, IEMA  
Kelly Grahn, IEMA  
Steve Shafer, REM/IEMA  
Pat Kelsey, CBB West  
Kristine Meyer, CBB West  
Matt Scheffler, CBB West  
John Wills, CBB West  
Mark Gravelding, BBLES  
Joseph Molina, BBLES  
Heather Vandewalker, BBLES



Jeff Walker, BBLES  
Michael Crystal, Severson  
Rick Elia, Jr., Severson  
Mark Schmitt, Severson  
Wade Carlson, ProSource  
Jerry Krane, ProSource

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Overburden  
Reach 2 Section R2-1

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-1-1706t	1018128.000	1892994.000	GS	1018127.953	1892994.027	718.299	-0.047	0.027	NA	
2	R2-1-T1	1018133.500	1893003.000	GS	1018133.484	1893003.036	719.641	-0.016	0.036	NA	
2	R2-1-T2	1018125.500	1893000.500	GS	1018125.476	1893000.540	719.142	-0.024	0.040	NA	
2	R2-1-T3	1018124.000	1892992.500	GS	1018124.027	1892992.515	718.074	0.027	0.015	NA	
2	R2-1-T4	1018138.000	1892987.000	GS	1018138.025	1892987.022	716.658	0.025	0.022	NA	
2	R2-1-T5	1018126.000	1892985.000	GS	1018125.959	1892985.005	716.340	-0.041	0.005	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-15076t	1018168.000	1892062.000	716.3	1018167.979	1892062.074	716.888	-0.021	0.074	0.588	K-M Directed to take all material as targeted
2	R2-2-15166t	1018027.100	1892803.500	GS	1018027.081	1892803.491	714.535	-0.019	-0.009	NA	
2	R2-2-15168t	1018067.000	1892768.800	712.1	1018066.946	1892768.874	712.157	-0.054	0.074	0.057	
2	R2-2-15169t	1018048.900	1892768.900	711.9	1018048.902	1892769.012	712.133	0.002	0.112	0.233	
2	R2-2-15172t	1018073.400	1892670.700	711.2	1018073.445	1892670.675	711.899	0.045	-0.025	0.699	K-M Directed to take all material as targeted
2	R2-2-1705t	1018112.000	1892989.000	GS	1018111.998	1892989.034	717.864	-0.002	0.034	NA	
2	R2-2-1710t	1018123.000	1892956.000	GS	1018123.116	1892956.005	714.290	0.116	0.005	NA	
2	R2-2-1719t	1018154.000	1892931.000	GS	1018154.004	1892930.988	715.672	0.004	-0.012	NA	
2	R2-2-17207t	1018086.000	1893022.400	715.1	1018086.010	1893022.353	715.278	0.010	-0.047	0.178	
2	R2-2-17208t	1018060.400	1893005.900	715.4	1018060.398	1893005.792	715.451	-0.002	-0.108	0.051	
2	R2-2-1732t	1018138.000	1892929.000	GS	1018138.007	1892929.011	714.826	0.007	0.011	NA	
2	R2-2-1734t	1018139.000	1892894.000	GS	1018138.961	1892893.942	716.142	-0.039	-0.058	NA	
2	R2-2-1735t	1018155.000	1892897.000	GS	1018154.989	1892897.000	715.692	-0.011	0.000	NA	
2	R2-2-1736t	1018171.000	1892899.000	715.6	1018171.053	1892898.958	715.815	0.053	-0.042	0.215	
2	R2-2-1739t	1018177.000	1892867.000	715.7	1018176.972	1892867.008	715.786	-0.028	0.008	0.086	
2	R2-2-1742t	1018151.000	1892830.000	712.8	1018151.043	1892829.894	713.006	0.043	-0.106	0.206	
2	R2-2-1743t	1018168.000	1892831.000	GS	1018167.986	1892830.961	715.457	-0.014	-0.039	NA	
2	R2-2-1748t	1018162.000	1892932.000	GS	1018162.013	1892931.973	716.241	0.013	-0.027	NA	
2	R2-2-1749t	1018096.000	1892985.000	GS	1018096.007	1892985.041	718.243	0.007	0.041	NA	
2	R2-2-1750t	1018080.000	1892980.000	GS	1018080.032	1892980.036	716.617	0.032	0.036	NA	
2	R2-2-1751t	1018065.000	1892974.000	714.3	1018064.895	1892973.981	716.158	-0.105	-0.019	1.858	
2	R2-2-1762t	1018132.000	1892958.000	GS	1018131.981	1892957.954	714.651	-0.019	-0.046	NA	
2	R2-2-1765t	1018150.000	1892793.000	GS	1018149.980	1892793.072	714.636	-0.020	0.072	NA	
2	R2-2-1766t	1018166.000	1892795.000	GS	1018166.030	1892795.009	717.130	0.030	0.009	NA	
2	R2-2-1770t	1018145.000	1892760.000	GS	1018145.059	1892759.972	714.258	0.059	-0.028	NA	
2	R2-2-1771t	1018161.000	1892761.000	GS	1018160.986	1892761.006	715.162	-0.014	0.006	NA	
2	R2-2-1773t	1018151.000	1892729.000	GS	1018151.012	1892728.988	714.302	0.012	-0.012	NA	
2	R2-2-1774t	1018168.000	1892730.000	GS	1018168.015	1892729.992	715.000	0.015	-0.008	NA	
2	R2-2-1777t	1018153.000	1892713.000	GS	1018152.999	1892713.014	714.056	-0.001	0.014	NA	
2	R2-2-17858t	1018074.900	1893013.900	715.4	1018074.914	1893013.948	715.535	0.014	0.048	0.135	
2	R2-2-1788t	1018170.000	1892714.000	714.7	1018170.051	1892714.111	715.237	0.051	0.111	0.537	
2	R2-2-1789t	1018186.000	1892714.000	GS	1018185.959	1892714.013	715.791	-0.041	0.013	NA	
2	R2-2-1791t	1018195.000	1892715.000	GS	1018194.987	1892714.995	716.453	-0.013	-0.005	NA	
2	R2-2-1793t	1018201.000	1892674.000	GS	1018200.933	1892674.053	717.326	-0.067	0.053	NA	
2	R2-2-1795t	1018184.000	1892674.000	GS	1018184.032	1892673.982	716.613	0.032	-0.018	NA	
2	R2-2-1796t	1018168.000	1892673.000	GS	1018167.990	1892672.986	715.326	-0.010	-0.014	NA	
2	R2-2-1798t	1018196.000	1892642.000	GS	1018195.962	1892642.020	717.152	-0.038	0.020	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

12/22/05

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-1799t	1018187.000	1892642.000	GS	1018186.989	1892641.924	716.553	-0.011	-0.076	NA	
2	R2-2-1800t	1018170.000	1892642.000	GS	1018170.007	1892642.012	713.168	0.007	0.012	NA	
2	R2-2-1813t	1018189.000	1892617.000	GS	1018189.074	1892616.939	717.001	0.074	-0.061	NA	
2	R2-2-1814t	1018197.000	1892617.000	GS	1018196.944	1892617.042	717.002	-0.056	0.042	NA	
2	R2-2-1817t	1018200.000	1892583.000	GS	1018200.079	1892583.002	717.872	0.079	0.002	NA	
2	R2-2-1857t	1018229.000	1892367.000	GS	1018229.034	1892366.923	713.665	0.034	-0.077	NA	
2	R2-2-18666t	1018003.600	1892968.700	712.6	1018003.674	1892968.755	712.437	0.074	0.055	-0.163	
2	R2-2-18667t	1018010.300	1892977.500	712.1	1018010.202	1892977.513	712.440	-0.098	0.013	0.340	
2	R2-2-18670t	1018011.200	1892955.000	712.0	1018011.205	1892954.969	712.264	0.005	-0.031	0.264	
2	R2-2-18671t	1017998.200	1892946.500	712.4	1017998.226	1892946.422	712.843	0.026	-0.078	0.443	
2	R2-2-18672t	1018017.300	1892965.200	711.3	1018017.333	1892965.225	711.559	0.033	0.025	0.259	
2	R2-2-18675t	1017989.600	1892939.100	713.3	1017989.537	1892939.087	713.164	-0.063	-0.013	-0.136	
2	R2-2-18676t	1018051.000	1892967.900	713.4	1018050.988	1892967.952	713.763	-0.012	0.052	0.363	
2	R2-2-1879t	1018241.000	1892341.000	GS	1018241.158	1892340.933	714.437	0.158	-0.067	NA	
2	R2-2-1880t	1018248.000	1892341.000	GS	1018247.930	1892340.941	715.622	-0.070	-0.059	NA	
2	R2-2-1881t	1018240.000	1892325.000	713.3	1018240.003	1892324.949	712.797	0.003	-0.051	-0.503	Point was surveyed at existing ground surface
2	R2-2-1882t	1018248.000	1892325.000	GS	1018247.929	1892324.974	715.195	-0.071	-0.026	NA	
2	R2-2-1884t	1018252.000	1892309.000	GS	1018252.025	1892309.006	715.682	0.025	0.006	NA	
2	R2-2-1885t	1018247.000	1892290.000	713.5	1018247.063	1892290.013	714.280	0.063	0.013	0.780	K-M Directed to take all material as targeted
2	R2-2-1886t	1018255.000	1892290.000	GS	1018254.992	1892290.025	715.837	-0.008	0.025	NA	
2	R2-2-1887t	1018252.000	1892273.000	GS	1018252.057	1892272.958	714.989	0.057	-0.042	NA	
2	R2-2-1977t	1018156.000	1892697.000	GS	1018155.957	1892696.940	714.172	-0.043	-0.060	NA	
2	R2-2-1978t	1018173.000	1892697.000	GS	1018172.946	1892697.033	715.507	-0.054	0.033	NA	
2	R2-2-1979t	1018189.000	1892697.000	GS	1018188.952	1892696.930	716.236	-0.048	-0.070	NA	
2	R2-2-2072t	1018054.000	1892934.000	705.9	1018054.024	1892933.926	706.344	0.024	-0.074	0.444	
2	R2-2-2073t	1018070.000	1892934.000	GS	1018069.965	1892934.015	711.431	-0.035	0.015	NA	
2	R2-2-2074t	1018087.000	1892934.000	GS	1018086.977	1892934.008	712.840	-0.023	0.008	NA	
2	R2-2-2076t	1018087.000	1892919.000	GS	1018086.965	1892919.022	711.626	-0.035	0.022	NA	
2	R2-2-2077t	1018103.000	1892919.000	GS	1018102.998	1892918.978	712.689	-0.002	-0.022	NA	
2	R2-2-2079t	1018111.000	1892919.000	GS	1018110.948	1892918.929	712.188	-0.052	-0.071	NA	
2	R2-2-2093t	1018017.000	1892904.000	GS	1018016.951	1892903.838	711.472	-0.049	-0.162	NA	
2	R2-2-2094t	1018033.000	1892904.000	GS	1018033.029	1892903.969	711.777	0.029	-0.031	NA	
2	R2-2-2095t	1018050.000	1892904.000	GS	1018050.067	1892904.052	710.531	0.067	0.052	NA	
2	R2-2-2098t	1018099.000	1892904.000	GS	1018098.930	1892903.930	712.353	-0.070	-0.070	NA	
2	R2-2-2100t	1018116.000	1892890.000	GS	1018116.077	1892889.974	712.155	0.077	-0.026	NA	
2	R2-2-2114t	1018017.000	1892875.000	GS	1018016.895	1892874.982	711.578	-0.105	-0.018	NA	
2	R2-2-2115t	1018033.000	1892875.000	GS	1018033.056	1892874.934	712.264	0.056	-0.066	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2116t	1018050.000	1892875.000	GS	1018050.003	1892875.049	711.592	0.003	0.049	NA	
2	R2-2-2120t	1018116.000	1892875.000	GS	1018116.001	1892875.008	712.396	0.001	0.008	NA	
2	R2-2-212t	1018014.000	1892832.000	715.5	1018014.073	1892832.025	715.498	0.073	0.025	-0.002	
2	R2-2-213t	1018024.000	1892804.000	GS	1018023.949	1892804.047	716.230	-0.051	0.047	NA	
2	R2-2-2147t	1018066.000	1892846.000	GS	1018066.013	1892845.958	711.736	0.013	-0.042	NA	
2	R2-2-2148t	1018050.000	1892846.000	711.0	1018050.070	1892845.993	711.325	0.070	-0.007	0.325	
2	R2-2-2149t	1018033.000	1892846.000	GS	1018032.943	1892846.001	711.580	-0.057	0.001	NA	
2	R2-2-214t	1018028.000	1892771.000	GS	1018028.037	1892770.909	715.542	0.037	-0.091	NA	
2	R2-2-2151t	1018066.000	1892814.000	GS	1018066.035	1892813.902	712.035	0.035	-0.098	NA	
2	R2-2-215t	1018032.000	1892756.000	GS	1018032.019	1892755.987	715.426	0.019	-0.013	NA	
2	R2-2-2163t	1018033.000	1892814.000	GS	1018033.077	1892813.992	712.135	0.077	-0.008	NA	
2	R2-2-2164t	1018050.000	1892814.000	GS	1018050.072	1892814.067	712.031	0.072	0.067	NA	
2	R2-2-216t	1018038.000	1892732.000	GS	1018038.082	1892732.050	715.787	0.082	0.050	NA	
2	R2-2-2175t	1018099.000	1892800.000	711.0	1018098.982	1892800.019	711.159	-0.018	0.019	0.159	
2	R2-2-2176t	1018116.000	1892786.000	711.2	1018116.012	1892785.949	711.806	0.012	-0.051	0.606	K-M Directed to take all material as targeted
2	R2-2-217t	1018046.000	1892698.000	GS	1018046.051	1892698.070	716.166	0.051	0.070	NA	
2	R2-2-218t	1018052.000	1892679.000	GS	1018051.962	1892678.900	714.858	-0.038	-0.100	NA	
2	R2-2-2197t	1018116.000	1892756.000	GS	1018116.014	1892756.072	711.620	0.014	0.072	NA	
2	R2-2-2198t	1018099.000	1892756.000	GS	1018098.936	1892756.095	711.611	-0.064	0.095	NA	
2	R2-2-219t	1018062.000	1892649.000	GS	1018061.974	1892648.964	712.631	-0.026	-0.036	NA	
2	R2-2-2202t	1018116.000	1892724.000	GS	1018116.117	1892724.000	711.231	0.117	0.000	NA	
2	R2-2-2203t	1018099.000	1892724.000	GS	1018098.970	1892724.015	711.611	-0.030	0.015	NA	
2	R2-2-2204t	1018083.000	1892724.000	711.3	1018083.047	1892723.978	711.685	0.047	-0.022	0.385	
2	R2-2-2205t	1018099.000	1892706.000	710.8	1018098.976	1892705.975	711.526	-0.024	-0.025	0.726	K-M Directed to take all material as targeted
2	R2-2-2206t	1018116.000	1892706.000	710.5	1018115.962	1892705.959	711.226	-0.038	-0.041	0.726	K-M Directed to take all material as targeted
2	R2-2-220t	1018072.000	1892614.000	GS	1018071.993	1892613.895	713.862	-0.007	-0.105	NA	
2	R2-2-221t	1018072.000	1892581.000	GS	1018071.912	1892580.947	716.360	-0.088	-0.053	NA	
2	R2-2-2226t	1018116.000	1892689.000	GS	1018116.005	1892688.964	711.312	0.005	-0.036	NA	
2	R2-2-2227t	1018099.000	1892689.000	710.8	1018098.953	1892688.915	711.443	-0.047	-0.085	0.643	K-M Directed to take all material as targeted
2	R2-2-2228t	1018083.000	1892689.000	711.1	1018083.049	1892688.969	711.760	0.049	-0.031	0.660	K-M Directed to take all material as targeted
2	R2-2-2229t	1018066.000	1892689.000	711.4	1018065.977	1892689.025	711.888	-0.023	0.025	0.488	K-M Directed to take all material as targeted
2	R2-2-222t	1018080.000	1892548.000	GS	1018080.003	1892547.906	716.660	0.003	-0.094	NA	
2	R2-2-2230t	1018066.000	1892673.000	GS	1018065.929	1892672.896	711.895	-0.071	-0.104	NA	
2	R2-2-2231t	1018083.000	1892673.000	711.2	1018082.977	1892673.006	711.871	-0.023	0.006	0.671	K-M Directed to take all material as targeted
2	R2-2-2232t	1018099.000	1892673.000	710.9	1018098.971	1892673.008	711.508	-0.029	0.008	0.608	K-M Directed to take all material as targeted
2	R2-2-2235t	1018116.000	1892673.000	GS	1018116.038	1892672.898	711.362	0.038	-0.102	NA	
2	R2-2-2236t	1018116.000	1892657.000	710.8	1018115.951	1892657.074	711.591	-0.049	0.074	0.791	K-M Directed to take all material as targeted

Δ Elevation &gt; 0.5 ft Blue      Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Overburden Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2237t	1018099.000	1892657.000	710.9	1018098.935	1892657.010	711.700	-0.065	0.010	0.800	K-M Directed to take all material as targeted
2	R2-2-2238t	1018148.000	1892657.000	709.9	1018148.095	1892657.017	711.158	0.095	0.017	1.258	K-M Directed to take all material as targeted
2	R2-2-223t	1018091.000	1892517.000	GS	1018091.030	1892516.956	716.671	0.030	-0.044	NA	
2	R2-2-2240t	1018083.000	1892657.000	GS	1018083.105	1892657.038	711.850	0.105	0.038	NA	
2	R2-2-2242t	1018132.000	1892640.000	710.1	1018131.978	1892640.017	711.198	-0.022	0.017	1.098	K-M Directed to take all material as targeted
2	R2-2-2243t	1018148.000	1892640.000	710.4	1018148.025	1892639.929	710.954	0.025	-0.071	0.554	K-M Directed to take all material as targeted
2	R2-2-2244t	1018116.000	1892640.000	710.9	1018116.019	1892640.030	711.718	0.019	0.030	0.818	K-M Directed to take all material as targeted
2	R2-2-2245t	1018116.000	1892623.000	711.0	1018116.001	1892623.053	711.919	0.001	0.053	0.919	K-M Directed to take all material as targeted
2	R2-2-2246t	1018132.000	1892623.000	710.3	1018131.958	1892622.952	711.269	-0.042	-0.048	0.969	K-M Directed to take all material as targeted
2	R2-2-2247t	1018148.000	1892623.000	710.5	1018147.919	1892623.014	710.863	-0.081	0.014	0.363	
2	R2-2-2248t	1018099.000	1892623.000	711.3	1018099.100	1892623.051	711.795	0.100	0.051	0.495	K-M Directed to take all material as targeted
2	R2-2-2249t	1018083.000	1892623.000	711.2	1018082.994	1892622.954	711.976	-0.006	-0.046	0.776	K-M Directed to take all material as targeted
2	R2-2-224t	1018099.000	1892478.000	719.2	1018099.072	1892478.013	718.567	0.072	0.013	-0.633	Point was surveyed at existing ground surface
2	R2-2-2250t	1018132.000	1892608.000	710.5	1018131.914	1892607.882	711.277	-0.086	-0.118	0.777	K-M Directed to take all material as targeted
2	R2-2-2251t	1018116.000	1892608.000	GS	1018116.056	1892607.996	711.918	0.056	-0.004	NA	
2	R2-2-2252t	1018148.000	1892608.000	710.7	1018148.001	1892607.919	710.774	0.001	-0.081	0.074	
2	R2-2-2253t	1018132.000	1892592.000	710.6	1018132.034	1892591.967	711.383	0.034	-0.033	0.783	K-M Directed to take all material as targeted
2	R2-2-2254t	1018116.000	1892592.000	710.5	1018115.963	1892592.021	711.829	-0.037	0.021	1.329	K-M Directed to take all material as targeted
2	R2-2-2255t	1018099.000	1892592.000	711.1	1018098.924	1892592.039	711.818	-0.076	0.039	0.718	K-M Directed to take all material as targeted
2	R2-2-2257t	1018132.000	1892576.000	710.7	1018132.043	1892575.968	711.498	0.043	-0.032	0.798	K-M Directed to take all material as targeted
2	R2-2-2258t	1018148.000	1892576.000	GS	1018148.068	1892576.006	711.390	0.068	0.006	NA	
2	R2-2-2259t	1018148.000	1892560.000	GS	1018147.956	1892560.030	711.079	-0.044	0.030	NA	
2	R2-2-225t	1018107.000	1892450.000	GS	1018107.067	1892449.975	718.592	0.067	-0.025	NA	
2	R2-2-2261t	1018116.000	1892560.000	GS	1018116.052	1892559.885	711.735	0.052	-0.115	NA	
2	R2-2-2262t	1018099.000	1892560.000	710.5	1018098.957	1892559.991	711.569	-0.043	-0.009	1.069	K-M Directed to take all material as targeted
2	R2-2-2263t	1018148.000	1892544.000	GS	1018147.943	1892544.022	711.378	-0.057	0.022	NA	
2	R2-2-2264t	1018132.000	1892544.000	GS	1018132.086	1892544.008	711.342	0.086	0.008	NA	
2	R2-2-2265t	1018033.000	1892786.000	GS	1018033.062	1892786.040	713.258	0.062	0.040	NA	
2	R2-2-2266t	1018050.000	1892786.000	711.9	1018050.093	1892785.944	711.832	0.093	-0.056	-0.068	
2	R2-2-2267t	1018066.000	1892786.000	712.4	1018065.980	1892786.015	712.733	-0.020	0.015	0.333	K-M Directed to take all material as targeted
2	R2-2-2268t	1018083.000	1892786.000	712.0	1018083.005	1892786.046	713.016	0.005	0.046	1.016	K-M Directed to take all material as targeted
2	R2-2-2269t	1018099.000	1892786.000	711.6	1018099.040	1892786.002	711.644	0.040	0.002	0.044	
2	R2-2-226t	1018117.000	1892417.000	719.2	1018116.902	1892416.958	718.329	-0.098	-0.042	-0.871	Point was surveyed at existing ground surface
2	R2-2-2270t	1018083.000	1892756.000	712.0	1018083.025	1892756.028	712.501	0.025	0.028	0.501	K-M Directed to take all material as targeted
2	R2-2-2271t	1018066.000	1892756.000	711.6	1018065.972	1892756.075	713.026	-0.028	0.075	1.426	K-M Directed to take all material as targeted
2	R2-2-2272t	1018050.000	1892756.000	711.8	1018050.029	1892755.988	712.905	0.029	-0.012	1.105	K-M Directed to take all material as targeted
2	R2-2-2273t	1018033.000	1892756.000	714.3	1018033.048	1892755.994	715.056	0.048	-0.006	0.756	K-M Directed to take all material as targeted

Δ Elevation > 0.5 ft Blue  
 Δ Elevation 0.5 to -0.25 ft Green  
 Δ Elevation < -0.25 ft Red  
 Δ Easting/Northing < or = 0.2 ft Green  
 Δ Easting/Northing > 0.2 ft Blue

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2274t	1018033.000	1892724.000	716.3	1018033.010	1892724.043	717.150	0.010	0.043	0.850	K-M Directed to take all material as targeted
2	R2-2-2275t	1018050.000	1892724.000	711.9	1018049.962	1892724.062	713.099	-0.038	0.062	1.199	K-M Directed to take all material as targeted
2	R2-2-2276t	1018066.000	1892724.000	712.4	1018066.045	1892724.005	712.089	0.045	0.005	-0.311	Point was surveyed at existing ground surface
2	R2-2-2277t	1018164.000	1892153.000	GS	1018164.000	1892152.929	712.038	0.000	-0.071	NA	
2	R2-2-2287t	1018099.000	1892934.000	GS	1018098.962	1892934.073	711.675	-0.038	0.073	NA	
2	R2-2-2289t	1018112.000	1892934.000	711.7	1018112.016	1892933.994	712.746	0.016	-0.006	1.046	K-M Directed to take all material as targeted
2	R2-2-228t	1018160.000	1892184.000	GS	1018159.970	1892184.043	713.380	-0.030	0.043	NA	
2	R2-2-2290t	1018148.000	1892528.000	710.8	1018148.054	1892527.896	711.366	0.054	-0.104	0.566	K-M Directed to take all material as targeted
2	R2-2-2291t	1018132.000	1892528.000	710.2	1018131.950	1892527.922	711.102	-0.050	-0.078	0.902	K-M Directed to take all material as targeted
2	R2-2-2295t	1018148.000	1892512.000	710.5	1018147.970	1892512.008	711.236	-0.030	0.008	0.736	K-M Directed to take all material as targeted
2	R2-2-2296t	1018163.000	1892512.000	GS	1018163.118	1892511.969	711.470	0.118	-0.031	NA	
2	R2-2-2297t	1018164.000	1892498.000	710.8	1018164.010	1892498.008	711.810	0.010	0.008	1.010	K-M Directed to take all material as targeted
2	R2-2-2298t	1018148.000	1892498.000	710.7	1018148.009	1892498.043	711.319	0.009	0.043	0.619	K-M Directed to take all material as targeted
2	R2-2-2299t	1018050.000	1892706.000	712.2	1018049.937	1892705.912	713.003	-0.063	-0.088	0.803	Point was surveyed at existing ground surface
2	R2-2-229t	1018154.000	1892216.000	GS	1018154.104	1892216.063	712.955	0.104	0.063	NA	
2	R2-2-2301t	1018066.000	1892623.000	GS	1018066.026	1892622.981	715.571	0.026	-0.019	NA	
2	R2-2-2302t	1018066.000	1892608.000	GS	1018065.995	1892607.964	716.866	-0.005	-0.036	NA	
2	R2-2-2303t	1018066.000	1892592.000	GS	1018065.969	1892592.008	717.446	-0.031	0.008	NA	
2	R2-2-2306t	1018066.000	1892576.000	GS	1018066.051	1892576.009	717.432	0.051	0.009	NA	
2	R2-2-2309t	1018066.000	1892560.000	716.1	1018065.910	1892560.011	717.749	-0.090	0.011	1.649	K-M Directed to take all material as targeted
2	R2-2-230t	1018151.000	1892249.000	GS	1018150.996	1892249.063	713.037	-0.004	0.063	NA	
2	R2-2-2311t	1018132.000	1892496.000	710.4	1018131.971	1892496.010	711.006	-0.029	0.010	0.606	K-M Directed to take all material as targeted
2	R2-2-2314t	1018162.000	1892480.000	710.6	1018162.059	1892479.973	711.358	0.059	-0.027	0.758	K-M Directed to take all material as targeted
2	R2-2-2316t	1018148.000	1892464.000	GS	1018148.021	1892463.976	710.859	0.021	-0.024	NA	
2	R2-2-2317t	1018162.000	1892464.000	GS	1018161.996	1892464.003	711.305	-0.004	0.003	NA	
2	R2-2-2318t	1018178.000	1892464.000	GS	1018178.063	1892463.924	711.517	0.063	-0.076	NA	
2	R2-2-2319t	1018132.000	1892444.000	710.7	1018132.103	1892444.034	711.351	0.103	0.034	0.651	K-M Directed to take all material as targeted
2	R2-2-231t	1018169.000	1892124.000	GS	1018168.924	1892124.004	712.262	-0.076	0.004	NA	
2	R2-2-2320t	1018148.000	1892444.000	GS	1018148.051	1892443.963	710.935	0.051	-0.037	NA	
2	R2-2-2321t	1018066.000	1892544.000	GS	1018065.998	1892544.058	718.246	-0.002	0.058	NA	
2	R2-2-2322t	1018083.000	1892544.000	GS	1018083.087	1892543.927	716.340	0.087	-0.073	NA	
2	R2-2-2324t	1018083.000	1892528.000	716.8	1018083.075	1892528.006	717.745	0.075	0.006	0.945	K-M Directed to take all material as targeted
2	R2-2-2325t	1018066.000	1892528.000	718.7	1018065.939	1892528.006	719.384	-0.061	0.006	0.684	K-M Directed to take all material as targeted
2	R2-2-2326t	1018083.000	1892480.000	718.9	1018082.994	1892479.958	720.196	-0.006	-0.042	1.296	Taken as TM due to utilities
2	R2-2-2327t	1018099.000	1892480.000	717.3	1018099.014	1892479.991	718.720	0.014	-0.009	1.420	Point was surveyed at existing ground surface
2	R2-2-2328t	1018099.000	1892464.000	717.6	1018098.995	1892463.985	719.525	-0.005	-0.015	1.925	Taken as TM due to utilities
2	R2-2-232t	1018176.000	1892086.000	GS	1018176.059	1892085.976	713.236	0.059	-0.024	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Overburden Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2330t	1018116.000	1892448.000	715.8	1018116.060	1892448.028	716.458	0.060	0.028	0.658	K-M Directed to take all material as targeted
2	R2-2-2331t	1018099.000	1892448.000	718.8	1018099.072	1892448.025	719.428	0.072	0.025	0.628	Taken as TM due to utilities
2	R2-2-2333t	1018180.000	1892444.000	710.3	1018180.061	1892443.989	711.570	0.061	-0.011	1.270	K-M Directed to take all material as targeted
2	R2-2-2334t	1018196.000	1892444.000	711.3	1018196.003	1892444.059	711.975	0.003	0.059	0.675	K-M Directed to take all material as targeted
2	R2-2-2335t	1018196.000	1892427.000	711.1	1018195.971	1892427.018	711.865	-0.029	0.018	0.765	K-M Directed to take all material as targeted
2	R2-2-2336t	1018180.000	1892427.000	710.7	1018179.973	1892426.957	711.613	-0.027	-0.043	0.913	K-M Directed to take all material as targeted
2	R2-2-2337t	1018164.000	1892427.000	710.4	1018164.102	1892427.039	711.120	0.102	0.039	0.720	K-M Directed to take all material as targeted
2	R2-2-2338t	1018148.000	1892427.000	GS	1018147.986	1892426.935	711.082	-0.014	-0.065	NA	
2	R2-2-233t	1018173.000	1892689.000	GS	1018173.017	1892689.004	715.794	0.017	0.004	NA	
2	R2-2-2340t	1018148.000	1892410.000	710.6	1018147.963	1892410.072	711.161	-0.037	0.072	0.561	K-M Directed to take all material as targeted
2	R2-2-2341t	1018164.000	1892410.000	710.4	1018164.050	1892410.050	711.121	0.050	0.050	0.721	K-M Directed to take all material as targeted
2	R2-2-2342t	1018180.000	1892410.000	710.1	1018180.065	1892409.981	711.438	0.065	-0.019	1.338	K-M Directed to take all material as targeted
2	R2-2-2343t	1018116.000	1892432.000	716.5	1018116.067	1892431.952	716.630	0.067	-0.048	0.130	
2	R2-2-2344t	1018116.000	1892416.000	715.8	1018115.950	1892415.961	718.500	-0.050	-0.039	2.700	Point was surveyed at existing ground surface
2	R2-2-2345t	1018083.000	1892464.000	718.1	1018083.007	1892463.971	720.204	0.007	-0.029	2.104	Taken as TM due to utilities
2	R2-2-2347t	1018099.000	1892496.000	GS	1018098.900	1892495.943	716.777	-0.100	-0.057	NA	
2	R2-2-2348t	1018083.000	1892496.000	GS	1018082.959	1892496.046	719.606	-0.041	0.046	NA	
2	R2-2-234t	1018158.000	1892689.000	GS	1018157.974	1892689.069	714.149	-0.026	0.069	NA	
2	R2-2-2350t	1018124.000	1892393.000	716.1	1018124.033	1892392.947	716.472	0.033	-0.053	0.372	
2	R2-2-2351t	1018124.000	1892376.000	717.1	1018123.990	1892375.963	717.399	-0.010	-0.037	0.299	
2	R2-2-2352t	1018124.000	1892359.000	GS	1018123.986	1892359.003	718.291	-0.014	0.003	NA	
2	R2-2-2353t	1018164.000	1892393.000	709.9	1018164.005	1892393.018	711.141	0.005	0.018	1.241	K-M Directed to take all material as targeted
2	R2-2-2354t	1018180.000	1892393.000	710.6	1018180.030	1892393.084	711.424	0.030	0.084	0.824	K-M Directed to take all material as targeted
2	R2-2-2355t	1018196.000	1892393.000	GS	1018196.049	1892392.924	711.701	0.049	-0.076	NA	
2	R2-2-2356t	1018212.000	1892393.000	710.7	1018212.025	1892393.043	711.649	0.025	0.043	0.949	K-M Directed to take all material as targeted
2	R2-2-2357t	1018212.000	1892376.000	710.7	1018211.945	1892375.914	711.748	-0.055	-0.086	1.048	K-M Directed to take all material as targeted
2	R2-2-2358t	1018196.000	1892376.000	710.8	1018195.983	1892375.964	711.576	-0.017	-0.036	0.776	K-M Directed to take all material as targeted
2	R2-2-2359t	1018180.000	1892376.000	GS	1018179.970	1892376.002	711.345	-0.030	0.002	NA	
2	R2-2-235t	1018190.000	1892690.000	GS	1018190.076	1892689.992	716.520	0.076	-0.008	NA	
2	R2-2-2360t	1018164.000	1892376.000	GS	1018163.999	1892375.982	711.073	-0.001	-0.018	NA	
2	R2-2-2363t	1018124.000	1892342.000	GS	1018123.973	1892341.911	717.942	-0.027	-0.089	NA	
2	R2-2-2364t	1018132.000	1892325.000	716.2	1018131.997	1892324.999	716.888	-0.003	-0.001	0.688	K-M Directed to take all material as targeted
2	R2-2-2365t	1018132.000	1892308.000	716.4	1018132.160	1892308.075	717.369	0.160	0.075	0.969	
2	R2-2-2369t	1018140.000	1892274.000	GS	1018139.962	1892274.050	715.571	-0.038	0.050	NA	
2	R2-2-236t	1018183.000	1892659.000	GS	1018183.095	1892658.993	716.645	0.095	-0.007	NA	
2	R2-2-2372t	1018148.000	1892376.000	710.7	1018148.004	1892376.022	711.389	0.004	0.022	0.689	K-M Directed to take all material as targeted
2	R2-2-2375t	1018164.000	1892359.000	710.4	1018163.993	1892358.969	711.161	-0.007	-0.031	0.761	K-M Directed to take all material as targeted

Δ Elevation > 0.5 ft Blue  
 Δ Elevation 0.5 to -0.25 ft Green  
 Δ Elevation < -0.25 ft Red  
 Δ Easting/Northing < or = 0.2 ft Green  
 Δ Easting/Northing > 0.2 ft Blue



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Overburden Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2376t	1018180.000	1892359.000	GS	1018179.914	1892359.083	711.057	-0.086	0.083	NA	
2	R2-2-2377t	1018196.000	1892359.000	GS	1018196.051	1892358.966	711.521	0.051	-0.034	NA	
2	R2-2-2378t	1018212.000	1892359.000	GS	1018211.965	1892358.948	711.792	-0.035	-0.052	NA	
2	R2-2-2379t	1018164.000	1892342.000	710.6	1018164.019	1892342.062	711.250	0.019	0.062	0.650	K-M Directed to take all material as targeted
2	R2-2-237t	1018199.000	1892659.000	GS	1018199.053	1892659.036	717.253	0.053	0.036	NA	
2	R2-2-2380t	1018148.000	1892342.000	711.0	1018148.007	1892342.061	711.541	0.007	0.061	0.541	K-M Directed to take all material as targeted
2	R2-2-2381t	1018140.000	1892257.000	GS	1018140.052	1892256.894	716.268	0.052	-0.106	NA	
2	R2-2-2382t	1018140.000	1892291.000	GS	1018140.001	1892291.023	715.226	0.001	0.023	NA	
2	R2-2-2383t	1018140.000	1892240.000	GS	1018140.006	1892239.984	716.470	0.006	-0.016	NA	
2	R2-2-2385t	1018148.000	1892223.000	GS	1018148.051	1892222.950	715.054	0.051	-0.050	NA	
2	R2-2-2386t	1018148.000	1892206.000	GS	1018147.953	1892206.028	715.389	-0.047	0.028	NA	
2	R2-2-2387t	1018148.000	1892190.000	GS	1018147.924	1892189.995	716.072	-0.076	-0.005	NA	
2	R2-2-2388t	1018156.000	1892174.000	GS	1018155.951	1892174.112	714.926	-0.049	0.112	NA	
2	R2-2-2389t	1018148.000	1892174.000	GS	1018147.997	1892174.131	716.645	-0.003	0.131	NA	
2	R2-2-2390t	1018148.000	1892158.000	GS	1018148.063	1892157.992	717.034	0.063	-0.008	NA	
2	R2-2-2392t	1018196.000	1892342.000	710.6	1018195.986	1892341.976	711.476	-0.014	-0.024	0.876	K-M Directed to take all material as targeted
2	R2-2-2393t	1018212.000	1892342.000	GS	1018211.981	1892341.953	711.625	-0.019	-0.047	NA	
2	R2-2-2395t	1018196.000	1892325.000	710.6	1018196.076	1892325.080	711.376	0.076	0.080	0.776	K-M Directed to take all material as targeted
2	R2-2-2396t	1018212.000	1892325.000	GS	1018212.145	1892325.111	711.701	0.145	0.111	NA	
2	R2-2-2397t	1018228.000	1892325.000	711.3	1018227.979	1892324.985	711.965	-0.021	-0.015	0.665	K-M Directed to take all material as targeted
2	R2-2-2398t	1018228.000	1892342.000	711.3	1018228.009	1892341.981	711.935	0.009	-0.019	0.635	K-M Directed to take all material as targeted
2	R2-2-2399t	1018156.000	1892158.000	GS	1018156.003	1892157.973	715.093	0.003	-0.027	NA	
2	R2-2-239t	1018180.000	1892627.000	GS	1018180.087	1892626.978	715.515	0.087	-0.022	NA	
2	R2-2-2400t	1018156.000	1892142.000	GS	1018156.118	1892141.955	715.633	0.118	-0.045	NA	
2	R2-2-2401t	1018156.000	1892126.000	GS	1018156.027	1892125.917	716.269	0.027	-0.083	NA	
2	R2-2-2402t	1018156.000	1892110.000	GS	1018155.972	1892110.118	716.804	-0.028	0.118	NA	
2	R2-2-2403t	1018156.000	1892094.000	716.4	1018155.904	1892093.977	716.704	-0.096	-0.023	0.304	K-M Directed to take all material as targeted
2	R2-2-2405t	1018164.000	1892078.000	GS	1018163.978	1892078.003	716.943	-0.022	0.003	NA	
2	R2-2-2408t	1018164.000	1892325.000	710.7	1018164.029	1892325.073	711.387	0.029	0.073	0.687	K-M Directed to take all material as targeted
2	R2-2-240t	1018196.000	1892627.000	GS	1018195.934	1892626.953	716.907	-0.066	-0.047	NA	
2	R2-2-2410t	1018212.000	1892308.000	710.7	1018211.982	1892307.989	711.551	-0.018	-0.011	0.851	K-M Directed to take all material as targeted
2	R2-2-2411t	1018196.000	1892308.000	710.5	1018196.024	1892308.018	711.372	0.024	0.018	0.872	K-M Directed to take all material as targeted
2	R2-2-2413t	1018164.000	1892308.000	710.8	1018164.020	1892308.036	711.435	0.020	0.036	0.635	K-M Directed to take all material as targeted
2	R2-2-2415t	1018180.000	1892291.000	710.5	1018179.993	1892290.995	711.168	-0.007	-0.005	0.668	K-M Directed to take all material as targeted
2	R2-2-2416t	1018196.000	1892291.000	709.3	1018195.953	1892290.977	711.238	-0.047	-0.023	1.938	K-M Directed to take all material as targeted
2	R2-2-2417t	1018212.000	1892291.000	710.6	1018212.053	1892291.018	711.437	0.053	0.018	0.837	K-M Directed to take all material as targeted
2	R2-2-2418t	1018228.000	1892291.000	710.9	1018228.026	1892291.007	711.756	0.026	0.007	0.856	K-M Directed to take all material as targeted

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2419t	1018180.000	1892046.000	GS	1018179.938	1892046.053	716.472	-0.062	0.053	NA	
2	R2-2-241t	1018176.000	1892719.000	GS	1018175.997	1892718.990	715.265	-0.003	-0.010	NA	
2	R2-2-2420t	1018167.000	1892046.000	GS	1018167.050	1892045.965	717.271	0.050	-0.035	NA	
2	R2-2-2421t	1018180.000	1892030.000	GS	1018180.095	1892029.940	717.966	0.095	-0.060	NA	
2	R2-2-2424t	1018196.000	1892014.000	GS	1018196.043	1892014.043	716.938	0.043	0.043	NA	
2	R2-2-2425t	1018180.000	1892014.000	GS	1018179.922	1892014.047	718.122	-0.078	0.047	NA	
2	R2-2-2427t	1018083.000	1892512.000	718.0	1018082.902	1892511.980	718.795	-0.098	-0.020	0.795	K-M Directed to take all material as targeted
2	R2-2-2428t	1018162.000	1892640.000	GS	1018162.027	1892640.046	711.546	0.027	0.046	NA	
2	R2-2-242t	1018159.000	1892718.000	GS	1018158.948	1892718.007	714.552	-0.052	0.007	NA	
2	R2-2-2437t	1018228.000	1892046.000	710.4	1018227.991	1892046.020	710.993	-0.009	0.020	0.593	K-M Directed to take all material as targeted
2	R2-2-2441t	1018180.000	1892274.000	710.6	1018180.047	1892274.010	711.256	0.047	0.010	0.656	K-M Directed to take all material as targeted
2	R2-2-2443t	1018212.000	1892274.000	710.6	1018211.930	1892273.990	711.438	-0.070	-0.010	0.838	K-M Directed to take all material as targeted
2	R2-2-2444t	1018228.000	1892274.000	710.5	1018227.980	1892273.974	711.600	-0.020	-0.026	1.100	K-M Directed to take all material as targeted
2	R2-2-2446t	1018164.000	1892240.000	711.2	1018164.027	1892240.023	711.680	0.027	0.023	0.480	K-M Directed to take all material as targeted
2	R2-2-2447t	1018180.000	1892240.000	710.8	1018179.974	1892240.016	711.339	-0.026	0.016	0.539	K-M Directed to take all material as targeted
2	R2-2-2448t	1018196.000	1892240.000	709.9	1018196.047	1892239.978	711.236	0.047	-0.022	1.336	K-M Directed to take all material as targeted
2	R2-2-2449t	1018212.000	1892240.000	710.5	1018212.045	1892239.983	711.371	0.045	-0.017	0.871	K-M Directed to take all material as targeted
2	R2-2-244t	1018177.000	1892731.000	GS	1018177.014	1892730.938	715.329	0.014	-0.062	NA	
2	R2-2-2453t	1018228.000	1892062.000	GS	1018228.068	1892061.937	711.047	0.068	-0.063	NA	
2	R2-2-2456t	1018244.000	1892078.000	GS	1018243.934	1892078.073	711.398	-0.066	0.073	NA	
2	R2-2-2458t	1018212.000	1892078.000	GS	1018211.906	1892077.999	711.221	-0.094	-0.001	NA	
2	R2-2-245t	1018161.000	1892730.000	GS	1018160.975	1892729.931	714.808	-0.025	-0.069	NA	
2	R2-2-2460t	1018180.000	1892094.000	711.5	1018180.045	1892094.078	711.631	0.045	0.078	0.131	
2	R2-2-2461t	1018196.000	1892094.000	GS	1018196.041	1892093.974	711.466	0.041	-0.026	NA	
2	R2-2-2462t	1018212.000	1892094.000	710.4	1018211.912	1892094.050	711.209	-0.088	0.050	0.809	K-M Directed to take all material as targeted
2	R2-2-2463t	1018164.000	1892223.000	GS	1018163.998	1892222.994	711.624	-0.002	-0.006	NA	
2	R2-2-2464t	1018196.000	1892223.000	710.5	1018196.004	1892222.995	711.221	0.004	-0.005	0.721	K-M Directed to take all material as targeted
2	R2-2-2465t	1018228.000	1892223.000	710.8	1018228.047	1892222.975	711.576	0.047	-0.025	0.776	K-M Directed to take all material as targeted
2	R2-2-2470t	1018212.000	1892206.000	710.5	1018211.981	1892206.118	711.306	-0.019	0.118	0.806	K-M Directed to take all material as targeted
2	R2-2-2471t	1018196.000	1892206.000	710.5	1018195.995	1892206.021	711.228	-0.005	0.021	0.728	K-M Directed to take all material as targeted
2	R2-2-2472t	1018180.000	1892206.000	GS	1018179.986	1892205.988	711.546	-0.014	-0.012	NA	
2	R2-2-2475t	1018228.000	1892094.000	GS	1018228.076	1892093.947	711.176	0.076	-0.053	NA	
2	R2-2-2476t	1018180.000	1892110.000	710.9	1018179.969	1892110.041	712.059	-0.031	0.041	1.159	K-M Directed to take all material as targeted
2	R2-2-2477t	1018196.000	1892110.000	GS	1018196.002	1892109.977	711.414	0.002	-0.023	NA	
2	R2-2-2478t	1018212.000	1892110.000	GS	1018211.931	1892110.028	711.247	-0.069	0.028	NA	
2	R2-2-2479t	1018228.000	1892110.000	GS	1018227.913	1892109.958	711.236	-0.087	-0.042	NA	
2	R2-2-2480t	1018244.000	1892110.000	GS	1018243.951	1892110.053	711.568	-0.049	0.053	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2483t	1018228.000	1892126.000	710.5	1018227.999	1892126.006	711.278	-0.001	0.006	0.778	K-M Directed to take all material as targeted
2	R2-2-2484t	1018212.000	1892126.000	710.4	1018211.978	1892126.079	711.141	-0.022	0.079	0.741	K-M Directed to take all material as targeted
2	R2-2-2485t	1018196.000	1892126.000	GS	1018195.984	1892126.041	711.290	-0.016	0.041	NA	
2	R2-2-2486t	1018180.000	1892126.000	GS	1018180.031	1892125.910	711.606	0.031	-0.090	NA	
2	R2-2-2488t	1018228.000	1892190.000	710.8	1018228.098	1892190.023	711.437	0.098	0.023	0.637	K-M Directed to take all material as targeted
2	R2-2-2489t	1018212.000	1892190.000	710.4	1018211.987	1892190.064	711.188	-0.013	0.064	0.788	K-M Directed to take all material as targeted
2	R2-2-2490t	1018196.000	1892190.000	GS	1018195.904	1892190.050	711.209	-0.096	0.050	NA	
2	R2-2-2491t	1018180.000	1892174.000	711.0	1018180.020	1892173.946	711.487	0.020	-0.054	0.487	K-M Directed to take all material as targeted
2	R2-2-2492t	1018196.000	1892174.000	710.5	1018196.017	1892173.940	711.300	0.017	-0.060	0.800	K-M Directed to take all material as targeted
2	R2-2-2494t	1018228.000	1892174.000	GS	1018228.016	1892173.992	711.393	0.016	-0.008	NA	
2	R2-2-2497t	1018228.000	1892156.000	710.1	1018228.001	1892155.987	711.374	0.001	-0.013	1.274	K-M Directed to take all material as targeted
2	R2-2-2498t	1018164.000	1892174.000	711.1	1018164.057	1892173.926	711.810	0.057	-0.074	0.710	K-M Directed to take all material as targeted
2	R2-2-2502t	1018027.000	1892948.000	710.7	1018026.955	1892948.035	710.692	-0.045	0.035	-0.008	
2	R2-2-2504t	1018001.000	1892904.000	GS	1018001.042	1892903.925	712.254	0.042	-0.075	NA	
2	R2-2-2505t	1018132.000	1892393.000	711.1	1018132.011	1892392.964	711.450	0.011	-0.036	0.350	
2	R2-2-2506t	1018148.000	1892393.000	710.7	1018148.031	1892393.038	711.283	0.031	0.038	0.583	K-M Directed to take all material as targeted
2	R2-2-2507t	1018196.000	1892410.000	711.0	1018196.027	1892409.947	711.656	0.027	-0.053	0.656	K-M Directed to take all material as targeted
2	R2-2-2508t	1018212.000	1892410.000	711.2	1018211.960	1892409.946	711.926	-0.040	-0.054	0.726	K-M Directed to take all material as targeted
2	R2-2-2509t	1018212.000	1892158.000	GS	1018212.102	1892158.000	711.167	0.102	0.000	NA	
2	R2-2-2510t	1018196.000	1892158.000	GS	1018196.022	1892158.139	711.293	0.022	0.139	NA	
2	R2-2-2511t	1018180.000	1892142.000	GS	1018180.003	1892142.058	711.512	0.003	0.058	NA	
2	R2-2-2512t	1018196.000	1892142.000	710.6	1018195.988	1892142.030	711.309	-0.012	0.030	0.709	K-M Directed to take all material as targeted
2	R2-2-2513t	1018212.000	1892142.000	710.4	1018212.009	1892141.983	711.142	0.009	-0.017	0.742	K-M Directed to take all material as targeted
2	R2-2-2515t	1018244.000	1892142.000	711.1	1018243.998	1892142.006	711.692	-0.002	0.006	0.592	K-M Directed to take all material as targeted
2	R2-2-2516t	1018164.000	1892623.000	711.3	1018163.919	1892622.943	711.545	-0.081	-0.057	0.245	
2	R2-2-2517t	1018164.000	1892528.000	711.0	1018163.994	1892528.036	710.932	-0.006	0.036	-0.068	
2	R2-2-2518t	1018164.000	1892544.000	711.6	1018164.032	1892544.036	711.591	0.032	0.036	-0.009	
2	R2-2-2519t	1018148.000	1892592.000	710.7	1018148.090	1892592.016	710.899	0.090	0.016	0.199	
2	R2-2-2520t	1018164.000	1892608.000	710.4	1018163.964	1892608.106	710.831	-0.036	0.106	0.431	
2	R2-2-2521t	1018180.000	1892608.000	712.7	1018180.048	1892608.039	712.724	0.048	0.039	0.024	
2	R2-2-2522t	1018196.000	1892608.000	GS	1018195.998	1892608.047	716.849	-0.002	0.047	NA	
2	R2-2-2523t	1018164.000	1892592.000	711.1	1018163.985	1892592.019	711.271	-0.015	0.019	0.171	
2	R2-2-2524t	1018164.000	1892576.000	711.1	1018163.964	1892576.042	711.324	-0.036	0.042	0.224	
2	R2-2-2525t	1018164.000	1892560.000	712.0	1018164.093	1892560.047	711.908	0.093	0.047	-0.092	
2	R2-2-2530t	1018033.000	1892981.000	713.1	1018033.040	1892980.973	713.413	0.040	-0.027	0.313	
2	R2-2-2532t	1018065.000	1892998.000	715.9	1018064.986	1892997.977	716.068	-0.014	-0.023	0.168	
2	R2-2-2534t	1018196.000	1892592.000	GS	1018195.965	1892591.942	717.412	-0.035	-0.058	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2535t	1018180.000	1892592.000	711.6	1018179.980	1892592.021	711.907	-0.020	0.021	0.307	
2	R2-2-2536t	1018180.000	1892576.000	711.4	1018179.979	1892575.975	711.788	-0.021	-0.025	0.388	
2	R2-2-2537t	1018180.000	1892560.000	710.9	1018179.980	1892559.965	711.146	-0.020	-0.035	0.246	
2	R2-2-2538t	1018180.000	1892544.000	710.7	1018180.052	1892543.973	710.915	0.052	-0.027	0.215	
2	R2-2-2539t	1018180.000	1892528.000	710.9	1018179.995	1892527.966	711.085	-0.005	-0.034	0.185	
2	R2-2-2541t	1018180.000	1892512.000	710.8	1018180.018	1892512.016	711.216	0.018	0.016	0.416	
2	R2-2-2542t	1018180.000	1892496.000	710.8	1018180.098	1892496.027	711.790	0.098	0.027	0.990	K-M Directed to take all material as targeted
2	R2-2-2543t	1018180.000	1892480.000	710.5	1018180.108	1892479.920	711.580	0.108	-0.080	1.080	K-M Directed to take all material as targeted
2	R2-2-2574t	1018083.000	1893030.000	716.7	1018082.928	1893030.001	717.003	-0.072	0.001	0.303	
2	R2-2-2577t	1018088.000	1893009.000	715.2	1018087.981	1893009.086	715.314	-0.019	0.086	0.114	
2	R2-2-2579t	1018096.000	1893011.000	715.0	1018096.068	1893011.030	715.072	0.068	0.030	0.072	
2	R2-2-2803t	1018130.000	1892942.000	GS	1018129.965	1892942.021	714.586	-0.035	0.021	NA	
2	R2-2-2804t	1018146.000	1892945.000	GS	1018146.020	1892944.991	715.154	0.020	-0.009	NA	
2	R2-2-2805t	1018162.000	1892948.000	715.6	1018162.035	1892947.992	715.924	0.035	-0.008	0.324	
2	R2-2-2807t	1018135.000	1892913.000	GS	1018134.974	1892912.985	715.022	-0.026	-0.015	NA	
2	R2-2-2808t	1018151.000	1892915.000	GS	1018151.011	1892914.977	715.438	0.011	-0.023	NA	
2	R2-2-2809t	1018168.000	1892917.000	GS	1018167.979	1892916.997	716.574	-0.021	-0.003	NA	
2	R2-2-597t	1018033.000	1892887.000	GS	1018033.034	1892886.937	712.145	0.034	-0.063	NA	
2	R2-2-598t	1018017.000	1892885.000	GS	1018016.984	1892885.105	711.663	-0.016	0.105	NA	
2	R2-2-599t	1018001.000	1892884.000	716.2	1018000.998	1892884.006	712.361	-0.002	0.006	-3.839	Point was surveyed at existing ground surface
2	R2-2-600t	1018049.000	1892888.000	GS	1018049.038	1892888.011	711.190	0.038	0.011	NA	
2	R2-2-602t	1018018.000	1892919.000	GS	1018017.983	1892918.970	712.184	-0.017	-0.030	NA	
2	R2-2-604t	1018006.000	1892919.000	GS	1018005.959	1892919.013	713.734	-0.041	0.013	NA	
2	R2-2-605t	1018031.000	1892859.000	GS	1018031.020	1892859.032	711.775	0.020	0.032	NA	
2	R2-2-606t	1018015.000	1892859.000	GS	1018015.063	1892859.044	711.677	0.063	0.044	NA	
2	R2-2-607t	1018043.000	1892827.000	GS	1018043.032	1892826.934	711.713	0.032	-0.066	NA	
2	R2-2-608t	1018026.000	1892827.000	GS	1018025.971	1892826.984	711.825	-0.029	-0.016	NA	
2	R2-2-609t	1018047.000	1892859.000	GS	1018047.005	1892859.003	712.095	0.005	0.003	NA	
2	R2-2-610t	1018064.000	1892859.000	GS	1018064.010	1892858.991	711.592	0.010	-0.009	NA	
2	R2-2-612t	1018059.000	1892827.000	GS	1018058.986	1892826.920	712.419	-0.014	-0.080	NA	
2	R2-2-613t	1018076.000	1892828.000	GS	1018076.079	1892827.991	711.919	0.079	-0.009	NA	
2	R2-2-615t	1018077.000	1892842.000	709.9	1018077.094	1892841.960	711.346	0.094	-0.040	1.446	K-M Directed to take all material as targeted
2	R2-2-617t	1018073.000	1892799.000	711.8	1018072.959	1892798.944	712.639	-0.041	-0.056	0.839	K-M Directed to take all material as targeted
2	R2-2-619t	1018056.000	1892798.000	GS	1018056.023	1892798.076	713.497	0.023	0.076	NA	
2	R2-2-620t	1018040.000	1892798.000	GS	1018039.972	1892797.931	713.027	-0.028	-0.069	NA	
2	R2-2-621t	1018098.000	1892770.000	GS	1018098.026	1892769.989	711.785	0.026	-0.011	NA	
2	R2-2-622t	1018082.000	1892770.000	GS	1018082.096	1892769.998	713.010	0.096	-0.002	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-623t	1018065.000	1892769.000	712.8	1018064.998	1892769.067	713.077	-0.002	0.067	0.277	
2	R2-2-625t	1018033.000	1892767.000	714.8	1018033.088	1892766.974	713.721	0.088	-0.026	-1.079	Point was surveyed at existing ground surface
2	R2-2-626t	1018102.000	1892737.000	GS	1018101.933	1892737.127	711.562	-0.067	0.127	NA	
2	R2-2-627t	1018118.000	1892738.000	710.9	1018118.021	1892737.976	711.367	0.021	-0.024	0.467	K-M Directed to take all material as targeted
2	R2-2-628t	1018085.000	1892737.000	GS	1018084.944	1892736.954	711.671	-0.056	-0.046	NA	
2	R2-2-629t	1018069.000	1892736.000	GS	1018068.968	1892735.993	712.430	-0.032	-0.007	NA	
2	R2-2-630t	1018056.000	1892736.000	GS	1018055.981	1892735.967	712.940	-0.019	-0.033	NA	
2	R2-2-631t	1018089.000	1892704.000	GS	1018088.916	1892703.898	711.545	-0.084	-0.102	NA	
2	R2-2-632t	1018072.000	1892703.000	711.4	1018071.986	1892702.942	711.992	-0.014	-0.058	0.592	K-M Directed to take all material as targeted
2	R2-2-633t	1018092.000	1892671.000	GS	1018091.943	1892670.904	711.667	-0.057	-0.096	NA	
2	R2-2-635t	1018095.000	1892635.000	GS	1018095.007	1892634.966	711.839	0.007	-0.034	NA	
2	R2-2-636t	1018079.000	1892633.000	GS	1018079.086	1892632.946	711.947	0.086	-0.054	NA	
2	R2-2-637t	1018105.000	1892603.000	GS	1018105.030	1892603.120	711.998	0.030	0.120	NA	
2	R2-2-640t	1018092.000	1892570.000	GS	1018092.075	1892569.975	711.864	0.075	-0.025	NA	
2	R2-2-641t	1018113.000	1892536.000	GS	1018112.967	1892536.062	711.673	-0.033	0.062	NA	
2	R2-2-642t	1018096.000	1892536.000	GS	1018096.065	1892535.930	712.265	0.065	-0.070	NA	
2	R2-2-643t	1018104.000	1892518.000	GS	1018103.921	1892517.954	712.563	-0.079	-0.046	NA	
2	R2-2-646t	1018123.000	1892438.000	GS	1018122.965	1892438.044	714.337	-0.035	0.044	NA	
2	R2-2-648t	1018194.000	1892290.000	GS	1018193.946	1892290.035	711.238	-0.054	0.035	NA	
2	R2-2-649t	1018184.000	1892255.000	GS	1018183.987	1892254.964	711.260	-0.013	-0.036	NA	
2	R2-2-650t	1018168.000	1892253.000	710.6	1018168.040	1892252.982	711.599	0.040	-0.018	0.999	K-M Directed to take all material as targeted
2	R2-2-651t	1018216.000	1892260.000	GS	1018216.012	1892260.001	711.475	0.012	0.001	NA	
2	R2-2-652t	1018207.000	1892226.000	GS	1018207.060	1892226.004	711.339	0.060	0.004	NA	
2	R2-2-653t	1018174.000	1892224.000	711.8	1018173.998	1892223.900	711.603	-0.002	-0.100	-0.197	
2	R2-2-654t	1018181.000	1892193.000	GS	1018181.018	1892193.029	711.471	0.018	0.029	NA	
2	R2-2-655t	1018176.000	1892160.000	GS	1018176.070	1892159.979	711.568	0.070	-0.021	NA	
2	R2-2-656t	1018186.000	1892128.000	GS	1018185.995	1892127.968	711.548	-0.005	-0.032	NA	
2	R2-2-658t	1018193.000	1892090.000	GS	1018192.961	1892090.001	711.482	-0.039	0.001	NA	
2	R2-2-659t	1018239.000	1892090.000	GS	1018239.016	1892089.976	711.195	0.016	-0.024	NA	
2	R2-2-660t	1018233.000	1892126.000	GS	1018232.990	1892126.000	711.322	-0.010	0.000	NA	
2	R2-2-662t	1018222.000	1892088.000	GS	1018222.059	1892088.048	711.072	0.059	0.048	NA	
2	R2-2-664t	1018212.000	1892038.000	GS	1018211.941	1892037.981	711.646	-0.059	-0.019	NA	
2	R2-2-666t	1018185.000	1892044.000	GS	1018184.958	1892044.090	714.846	-0.042	0.090	NA	
2	R2-2-667t	1018181.000	1892072.000	711.4	1018180.982	1892072.043	712.383	-0.018	0.043	0.983	K-M Directed to take all material as targeted
2	R2-2-668t	1018195.000	1892011.000	GS	1018195.091	1892011.071	717.410	0.091	0.071	NA	
2	R2-2-675t	1018116.000	1892975.000	GS	1018115.938	1892974.996	715.191	-0.062	-0.004	NA	
2	R2-2-676t	1018100.000	1892971.000	GS	1018099.986	1892970.995	715.082	-0.014	-0.005	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-677t	1018085.000	1892968.000	GS	1018085.067	1892968.012	714.095	0.067	0.012	NA	
2	R2-2-689t	1018142.000	1892878.000	GS	1018142.023	1892878.028	714.918	0.023	0.028	NA	
2	R2-2-690t	1018158.000	1892880.000	GS	1018158.007	1892879.981	715.582	0.007	-0.019	NA	
2	R2-2-691t	1018174.000	1892883.000	715.7	1018174.041	1892882.934	715.737	0.041	-0.066	0.037	
2	R2-2-694t	1018167.000	1892849.000	GS	1018166.967	1892848.994	715.637	-0.033	-0.006	NA	
2	R2-2-695t	1018183.000	1892851.000	GS	1018183.045	1892851.029	716.456	0.045	0.029	NA	
2	R2-2-697t	1018151.000	1892810.000	GS	1018151.006	1892809.952	714.331	0.006	-0.048	NA	
2	R2-2-698t	1018168.000	1892812.000	GS	1018168.015	1892811.969	715.558	0.015	-0.031	NA	
2	R2-2-699t	1018184.000	1892814.000	GS	1018183.943	1892814.036	716.266	-0.057	0.036	NA	
2	R2-2-701t	1018146.000	1892778.000	GS	1018146.012	1892777.961	714.417	0.012	-0.039	NA	
2	R2-2-702t	1018162.000	1892779.000	GS	1018161.966	1892778.959	715.065	-0.034	-0.041	NA	
2	R2-2-705t	1018198.000	1892748.000	GS	1018197.984	1892747.914	717.125	-0.016	-0.086	NA	
2	R2-2-706t	1018181.000	1892747.000	GS	1018181.069	1892746.940	715.801	0.069	-0.060	NA	
2	R2-2-707t	1018166.000	1892746.000	GS	1018166.011	1892745.964	715.477	0.011	-0.036	NA	
2	R2-2-708t	1018151.000	1892744.000	GS	1018150.985	1892744.005	714.541	-0.015	0.005	NA	
2	R2-2-709t	1018189.000	1892602.000	GS	1018188.970	1892602.089	716.183	-0.030	0.089	NA	
2	R2-2-710t	1018204.000	1892602.000	716.9	1018203.968	1892601.920	717.716	-0.032	-0.080	0.816	
2	R2-2-711t	1018203.000	1892569.000	GS	1018203.067	1892568.957	717.573	0.067	-0.043	NA	
2	R2-2-777t	1017991.000	1892902.000	GS	1017991.026	1892901.982	715.731	0.026	-0.018	NA	
2	R2-2-T1	1018079.500	1893037.400	716.7	1018079.538	1893037.386	716.717	0.038	-0.014	0.017	
2	R2-2-T10	1018084.000	1893007.000	715.2	1018084.107	1893007.055	715.444	0.107	0.055	0.244	
2	R2-2-T100	1018058.000	1892875.000	GS	1018058.017	1892874.980	711.505	0.017	-0.020	NA	
2	R2-2-T101	1018107.500	1892875.000	GS	1018107.460	1892875.057	712.437	-0.040	0.057	NA	
2	R2-2-T102	1018124.000	1892875.000	GS	1018124.077	1892874.966	711.586	0.077	-0.034	NA	
2	R2-2-T103	1018167.500	1892874.000	715.7	1018167.571	1892874.012	715.882	0.071	0.012	0.182	
2	R2-2-T104	1017992.200	1892870.700	716.2	1017992.186	1892870.721	716.389	-0.014	0.021	0.189	
2	R2-2-T105	1018143.500	1892870.500	GS	1018143.508	1892870.470	714.767	0.008	-0.030	NA	
2	R2-2-T106	1018107.500	1892867.500	GS	1018107.526	1892867.517	712.408	0.026	0.017	NA	
2	R2-2-T107	1018124.000	1892867.500	GS	1018124.032	1892867.500	711.855	0.032	0.000	NA	
2	R2-2-T108	1018183.400	1892867.100	715.7	1018183.351	1892867.077	716.045	-0.049	-0.023	0.345	
2	R2-2-T109	1018169.000	1892866.000	715.7	1018169.072	1892866.032	715.694	0.072	0.032	-0.006	
2	R2-2-T11	1018101.500	1893007.000	715.0	1018101.507	1893006.914	714.985	0.007	-0.086	-0.015	
2	R2-2-T110	1018072.000	1892859.500	GS	1018071.984	1892859.527	711.375	-0.016	0.027	NA	
2	R2-2-T111	1017997.700	1892859.000	GS	1017997.716	1892858.978	717.100	0.016	-0.022	NA	
2	R2-2-T112	1018073.000	1892853.000	GS	1018072.993	1892852.991	711.386	-0.007	-0.009	NA	
2	R2-2-T113	1018017.000	1892852.500	GS	1018017.081	1892852.517	711.497	0.081	0.017	NA	
2	R2-2-T114	1018025.000	1892852.500	GS	1018025.033	1892852.521	711.589	0.033	0.021	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T115	1018185.800	1892850.900	GS	1018185.738	1892850.878	716.792	-0.062	-0.022	NA	
2	R2-2-T116	1018158.500	1892848.000	GS	1018158.515	1892848.018	715.300	0.015	0.018	NA	
2	R2-2-T117	1018014.500	1892846.000	GS	1018014.504	1892846.011	711.778	0.004	0.011	NA	
2	R2-2-T118	1018026.000	1892846.000	GS	1018026.010	1892845.989	711.446	0.010	-0.011	NA	
2	R2-2-T119	1018085.000	1892843.500	709.9	1018085.086	1892843.481	710.975	0.086	-0.019	1.075	K-M Directed to take all material as targeted
2	R2-2-T12	1018089.500	1893004.000	715.2	1018089.526	1893004.009	715.266	0.026	0.009	0.066	
2	R2-2-T120	1018183.500	1892841.500	GS	1018183.456	1892841.511	716.551	-0.044	0.011	NA	
2	R2-2-T121	1018175.500	1892840.500	GS	1018175.481	1892840.540	716.225	-0.019	0.040	NA	
2	R2-2-T122	1018007.000	1892839.400	715.5	1018007.000	1892839.368	716.803	0.000	-0.032	1.303	K-M Directed to take all material as targeted
2	R2-2-T123	1018016.500	1892839.000	715.5	1018016.490	1892838.975	713.273	-0.010	-0.025	-2.227	Point was surveyed at existing ground surface
2	R2-2-T124	1018159.000	1892839.000	712.8	1018159.026	1892838.929	712.890	0.026	-0.071	0.090	
2	R2-2-T125	1018141.500	1892838.000	712.8	1018141.455	1892838.028	711.903	-0.045	0.028	-0.897	Point was surveyed at existing ground surface
2	R2-2-T126	1018022.500	1892836.500	715.5	1018022.447	1892836.528	711.717	-0.053	0.028	-3.783	Point was surveyed at existing ground surface
2	R2-2-T127	1018176.000	1892831.500	GS	1018176.017	1892831.510	716.308	0.017	0.010	NA	
2	R2-2-T128	1018012.000	1892829.500	715.5	1018011.964	1892829.566	716.632	-0.036	0.066	1.132	K-M Directed to take all material as targeted
2	R2-2-T129	1018141.500	1892829.500	712.8	1018141.491	1892829.520	711.648	-0.009	0.020	-1.152	Point was surveyed at existing ground surface
2	R2-2-T13	1018052.700	1893002.900	715.4	1018052.676	1893002.872	715.476	-0.024	-0.028	0.076	
2	R2-2-T130	1018084.000	1892828.000	GS	1018084.029	1892827.963	711.290	0.029	-0.037	NA	
2	R2-2-T131	1018184.000	1892823.000	GS	1018183.956	1892822.949	716.428	-0.044	-0.051	NA	
2	R2-2-T132	1018074.500	1892814.000	GS	1018074.495	1892814.067	712.427	-0.005	0.067	NA	
2	R2-2-T133	1018015.700	1892812.200	GS	1018015.691	1892812.227	717.123	-0.009	0.027	NA	
2	R2-2-T134	1018141.500	1892812.000	GS	1018141.480	1892811.955	711.640	-0.020	-0.045	NA	
2	R2-2-T135	1018107.500	1892807.000	711.0	1018107.596	1892807.041	711.013	0.096	0.041	0.013	
2	R2-2-T136	1018094.000	1892806.500	711.0	1018094.086	1892806.481	711.003	0.086	-0.019	0.003	
2	R2-2-T137	1018185.100	1892805.000	GS	1018185.104	1892804.971	716.477	0.004	-0.029	NA	
2	R2-2-T138	1018175.500	1892804.000	GS	1018175.518	1892804.037	715.924	0.018	0.037	NA	
2	R2-2-T139	1018107.500	1892800.000	711.0	1018107.556	1892799.932	711.213	0.056	-0.068	0.213	
2	R2-2-T14	1018072.200	1893002.400	715.9	1018072.190	1893002.410	716.112	-0.010	0.010	0.212	
2	R2-2-T140	1018094.000	1892799.500	711.0	1018094.000	1892799.507	711.246	0.000	0.007	0.246	
2	R2-2-T141	1018081.000	1892799.000	711.8	1018081.020	1892798.931	712.828	0.020	-0.069	1.028	K-M Directed to take all material as targeted
2	R2-2-T142	1018157.000	1892797.500	GS	1018157.012	1892797.433	714.808	0.012	-0.067	NA	
2	R2-2-T143	1018141.000	1892796.500	GS	1018141.029	1892796.444	712.057	0.029	-0.056	NA	
2	R2-2-T144	1018174.500	1892795.500	GS	1018174.403	1892795.508	716.411	-0.097	0.008	NA	
2	R2-2-T145	1018116.000	1892793.000	711.2	1018115.989	1892793.075	711.402	-0.011	0.075	0.202	
2	R2-2-T146	1018124.000	1892793.000	711.2	1018124.002	1892793.013	711.683	0.002	0.013	0.483	K-M Directed to take all material as targeted
2	R2-2-T147	1018094.000	1892792.500	711.6	1018094.017	1892792.457	711.832	0.017	-0.043	0.232	
2	R2-2-T148	1018023.300	1892790.400	GS	1018023.196	1892790.415	716.619	-0.104	0.015	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T149	1018141.000	1892789.500	GS	1018140.999	1892789.527	712.529	-0.001	0.027	NA	
2	R2-2-T15	1018054.700	1892997.400	715.4	1018054.756	1892997.354	715.613	0.056	-0.046	0.213	
2	R2-2-T150	1018124.000	1892786.000	711.2	1018123.990	1892786.030	711.572	-0.010	0.030	0.372	K-M Directed to take all material as targeted
2	R2-2-T151	1018170.000	1892779.500	GS	1018170.043	1892779.497	715.485	0.043	-0.003	NA	
2	R2-2-T152	1018107.500	1892778.500	711.2	1018107.485	1892778.466	711.577	-0.015	-0.034	0.377	K-M Directed to take all material as targeted
2	R2-2-T153	1018124.000	1892778.500	711.2	1018124.034	1892778.501	711.549	0.034	0.001	0.349	K-M Directed to take all material as targeted
2	R2-2-T154	1018139.000	1892774.500	GS	1018139.085	1892774.568	714.256	0.085	0.068	NA	
2	R2-2-T155	1018107.000	1892770.500	GS	1018106.970	1892770.585	711.672	-0.030	0.085	NA	
2	R2-2-T156	1018023.700	1892770.100	GS	1018023.712	1892770.152	716.547	0.012	0.052	NA	
2	R2-2-T157	1018107.500	1892763.500	GS	1018107.500	1892763.523	711.656	0.000	0.023	NA	
2	R2-2-T158	1018124.000	1892763.500	GS	1018124.001	1892763.543	711.528	0.001	0.043	NA	
2	R2-2-T159	1018167.500	1892762.000	GS	1018167.476	1892761.953	715.504	-0.024	-0.047	NA	
2	R2-2-T16	1018113.500	1892997.000	GS	1018113.463	1892997.022	718.865	-0.037	0.022	NA	
2	R2-2-T160	1018138.500	1892758.000	GS	1018138.519	1892758.029	712.888	0.019	0.029	NA	
2	R2-2-T161	1018194.800	1892756.900	GS	1018194.796	1892756.923	716.909	-0.004	0.023	NA	
2	R2-2-T162	1018026.900	1892756.000	GS	1018026.845	1892755.976	716.571	-0.055	-0.024	NA	
2	R2-2-T163	1018124.000	1892756.000	GS	1018124.048	1892756.058	711.467	0.048	0.058	NA	
2	R2-2-T164	1018187.500	1892756.000	GS	1018187.493	1892755.960	716.170	-0.007	-0.040	NA	
2	R2-2-T165	1018170.000	1892754.500	GS	1018170.003	1892754.504	715.827	0.003	0.004	NA	
2	R2-2-T166	1018141.500	1892742.500	GS	1018141.484	1892742.461	713.515	-0.016	-0.039	NA	
2	R2-2-T167	1018196.200	1892739.800	GS	1018196.188	1892739.811	716.844	-0.012	0.011	NA	
2	R2-2-T168	1018125.000	1892739.500	710.9	1018124.937	1892739.522	711.399	-0.063	0.022	0.499	
2	R2-2-T169	1018182.500	1892739.000	GS	1018182.515	1892739.001	715.795	0.015	0.001	NA	
2	R2-2-T17	1018070.000	1892996.500	715.9	1018070.040	1892996.464	716.038	0.040	-0.036	0.138	
2	R2-2-T170	1018180.500	1892731.000	GS	1018180.515	1892731.012	715.588	0.015	0.012	NA	
2	R2-2-T171	1018030.000	1892728.700	716.3	1018030.070	1892728.664	717.455	0.070	-0.036	1.155	K-M Directed to take all material as targeted
2	R2-2-T172	1018141.500	1892726.500	GS	1018141.483	1892726.447	711.716	-0.017	-0.053	NA	
2	R2-2-T173	1018180.000	1892725.000	GS	1018179.972	1892724.958	715.391	-0.028	-0.042	NA	
2	R2-2-T174	1018124.000	1892724.000	GS	1018124.056	1892724.025	711.397	0.056	0.025	NA	
2	R2-2-T175	1018194.500	1892723.500	GS	1018194.459	1892723.514	716.329	-0.041	0.014	NA	
2	R2-2-T176	1018142.500	1892718.500	GS	1018142.471	1892718.646	711.804	-0.029	0.146	NA	
2	R2-2-T177	1018035.100	1892715.000	716.3	1018035.109	1892715.037	717.440	0.009	0.037	1.140	K-M Directed to take all material as targeted
2	R2-2-T178	1018150.500	1892709.500	GS	1018150.513	1892709.463	713.845	0.013	-0.037	NA	
2	R2-2-T179	1018043.500	1892706.000	712.2	1018043.537	1892706.040	716.178	0.037	0.040	3.978	K-M Directed to take all material as targeted
2	R2-2-T18	1018093.500	1892992.000	GS	1018093.491	1892991.968	719.075	-0.009	-0.032	NA	
2	R2-2-T180	1018124.000	1892706.000	710.5	1018123.929	1892705.972	711.334	-0.071	-0.028	0.834	K-M Directed to take all material as targeted
2	R2-2-T181	1018196.600	1892700.400	GS	1018196.564	1892700.427	716.581	-0.036	0.027	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red



## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T182	1018197.800	1892690.500	GS	1018197.864	1892690.484	716.867	0.064	-0.016	NA	
2	R2-2-T183	1018045.400	1892689.000	GS	1018045.441	1892688.998	717.456	0.041	-0.002	NA	
2	R2-2-T184	1018124.000	1892689.000	GS	1018123.927	1892689.004	711.343	-0.073	0.004	NA	
2	R2-2-T185	1018153.000	1892689.000	GS	1018153.020	1892689.032	712.695	0.020	0.032	NA	
2	R2-2-T186	1018153.000	1892681.000	GS	1018153.070	1892680.981	711.809	0.070	-0.019	NA	
2	R2-2-T187	1018047.900	1892678.400	GS	1018047.887	1892678.440	717.208	-0.013	0.040	NA	
2	R2-2-T188	1018124.000	1892673.000	GS	1018124.024	1892673.061	711.370	0.024	0.061	NA	
2	R2-2-T189	1018158.000	1892673.000	GS	1018158.047	1892672.957	712.803	0.047	-0.043	NA	
2	R2-2-T190	1018066.000	1892665.000	GS	1018065.986	1892665.038	712.142	-0.014	0.038	NA	
2	R2-2-T191	1018140.000	1892665.000	709.9	1018139.972	1892665.075	711.149	-0.028	0.075	1.249	K-M Directed to take all material as targeted
2	R2-2-T192	1018148.000	1892665.000	709.9	1018148.029	1892664.931	711.265	0.029	-0.069	1.365	K-M Directed to take all material as targeted
2	R2-2-T193	1018174.500	1892658.500	GS	1018174.554	1892658.518	715.849	0.054	0.018	NA	
2	R2-2-T194	1018157.000	1892657.500	709.9	1018157.037	1892657.486	711.470	0.037	-0.014	1.570	K-M Directed to take all material as targeted
2	R2-2-T195	1018074.500	1892657.000	GS	1018074.521	1892657.048	711.894	0.021	0.048	NA	
2	R2-2-T196	1018124.000	1892657.000	710.8	1018124.007	1892656.988	711.425	0.007	-0.012	0.625	K-M Directed to take all material as targeted
2	R2-2-T197	1018140.000	1892657.000	709.9	1018140.015	1892657.010	711.018	0.015	0.010	1.118	K-M Directed to take all material as targeted
2	R2-2-T198	1018064.000	1892653.000	GS	1018063.936	1892653.015	712.121	-0.064	0.015	NA	
2	R2-2-T199	1018053.800	1892651.900	GS	1018053.834	1892651.899	717.465	0.034	-0.001	NA	
2	R2-2-T2	1018087.500	1893031.000	716.7	1018087.355	1893031.080	716.910	-0.145	0.080	0.210	
2	R2-2-T20	1018116.000	1892990.000	GS	1018115.981	1892989.957	717.647	-0.019	-0.043	NA	
2	R2-2-T200	1018164.000	1892649.000	GS	1018164.015	1892648.952	711.650	0.015	-0.048	NA	
2	R2-2-T201	1018066.000	1892648.500	GS	1018066.003	1892648.431	712.127	0.003	-0.069	NA	
2	R2-2-T202	1018124.000	1892648.500	710.1	1018124.005	1892648.506	711.435	0.005	0.006	1.335	K-M Directed to take all material as targeted
2	R2-2-T203	1018132.000	1892648.500	710.1	1018132.054	1892648.425	711.174	0.054	-0.075	1.074	K-M Directed to take all material as targeted
2	R2-2-T204	1018061.000	1892638.900	GS	1018061.042	1892638.858	715.829	0.042	-0.042	NA	
2	R2-2-T205	1018072.500	1892636.500	GS	1018072.534	1892636.513	712.058	0.034	0.013	NA	
2	R2-2-T206	1018066.000	1892631.500	GS	1018066.071	1892631.571	713.096	0.071	0.071	NA	
2	R2-2-T207	1018059.300	1892623.000	GS	1018059.273	1892623.080	717.898	-0.027	0.080	NA	
2	R2-2-T208	1018085.500	1892613.000	711.2	1018085.550	1892612.932	711.943	0.050	-0.068	0.743	K-M Directed to take all material as targeted
2	R2-2-T209	1018093.500	1892613.000	711.3	1018093.604	1892613.012	711.959	0.104	0.012	0.659	K-M Directed to take all material as targeted
2	R2-2-T21	1018040.100	1892986.300	713.1	1018040.119	1892986.194	713.325	0.019	-0.106	0.225	
2	R2-2-T210	1018061.100	1892608.000	GS	1018061.166	1892607.877	717.729	0.066	-0.123	NA	
2	R2-2-T211	1018204.000	1892606.900	716.9	1018204.049	1892606.822	717.495	0.049	-0.078	0.595	Point was surveyed at existing ground surface
2	R2-2-T212	1018077.000	1892605.500	GS	1018077.033	1892605.423	712.424	0.033	-0.077	NA	
2	R2-2-T213	1018096.500	1892603.000	GS	1018096.558	1892602.996	712.124	0.058	-0.004	NA	
2	R2-2-T214	1018205.700	1892599.500	716.9	1018205.710	1892599.550	717.932	0.010	0.050	1.032	Point was surveyed at existing ground surface
2	R2-2-T215	1018074.000	1892592.000	GS	1018074.047	1892592.096	715.537	0.047	0.096	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

## KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T216	1018091.000	1892592.000	711.1	1018091.064	1892591.927	711.849	0.064	-0.073	0.749	K-M Directed to take all material as targeted
2	R2-2-T217	1018203.400	1892592.000	GS	1018203.426	1892591.968	718.197	0.026	-0.032	NA	
2	R2-2-T218	1018061.600	1892590.600	GS	1018061.611	1892590.680	718.155	0.011	0.080	NA	
2	R2-2-T219	1018202.000	1892587.500	GS	1018201.998	1892587.505	718.204	-0.002	0.005	NA	
2	R2-2-T22	1018070.000	1892984.500	GS	1018069.994	1892984.556	718.894	-0.006	0.056	NA	
2	R2-2-T220	1018077.000	1892586.500	GS	1018077.085	1892586.447	715.250	0.085	-0.053	NA	
2	R2-2-T221	1018091.000	1892584.000	711.1	1018091.049	1892583.950	711.897	0.049	-0.050	0.797	K-M Directed to take all material as targeted
2	R2-2-T222	1018104.000	1892581.000	711.1	1018104.057	1892580.933	711.720	0.057	-0.067	0.620	K-M Directed to take all material as targeted
2	R2-2-T223	1018077.500	1892578.500	GS	1018077.487	1892578.442	715.527	-0.013	-0.058	NA	
2	R2-2-T224	1018074.500	1892576.000	GS	1018074.445	1892575.933	716.355	-0.055	-0.067	NA	
2	R2-2-T225	1018061.200	1892575.300	GS	1018061.122	1892575.378	718.018	-0.078	0.078	NA	
2	R2-2-T226	1018087.500	1892573.000	GS	1018087.565	1892573.092	711.915	0.065	0.092	NA	
2	R2-2-T227	1018120.500	1892573.000	710.7	1018120.549	1892573.024	711.803	0.049	0.024	1.103	K-M Directed to take all material as targeted
2	R2-2-T228	1018100.500	1892570.000	GS	1018100.491	1892570.050	711.994	-0.009	0.050	NA	
2	R2-2-T229	1018132.000	1892568.000	710.7	1018132.031	1892567.931	711.446	0.031	-0.069	0.746	K-M Directed to take all material as targeted
2	R2-2-T23	1018057.000	1892981.500	714.3	1018056.911	1892981.495	714.390	-0.089	-0.005	0.090	
2	R2-2-T230	1018140.000	1892568.000	GS	1018140.066	1892568.069	711.326	0.066	0.069	NA	
2	R2-2-T231	1018087.500	1892565.000	GS	1018087.569	1892564.985	712.160	0.069	-0.015	NA	
2	R2-2-T232	1018112.500	1892565.000	GS	1018112.563	1892564.927	711.687	0.063	-0.073	NA	
2	R2-2-T233	1018060.800	1892560.300	716.1	1018060.702	1892560.309	718.201	-0.098	0.009	2.101	K-M Directed to take all material as targeted
2	R2-2-T234	1018074.500	1892560.000	716.1	1018074.489	1892559.946	716.992	-0.011	-0.054	0.892	K-M Directed to take all material as targeted
2	R2-2-T235	1018091.000	1892560.000	710.5	1018090.978	1892559.910	711.728	-0.022	-0.090	1.228	K-M Directed to take all material as targeted
2	R2-2-T236	1018124.000	1892560.000	GS	1018124.096	1892559.902	711.665	0.096	-0.098	NA	
2	R2-2-T237	1018140.000	1892560.000	GS	1018140.061	1892559.994	711.243	0.061	-0.006	NA	
2	R2-2-T238	1018198.500	1892559.500	GS	1018198.538	1892559.541	716.544	0.038	0.041	NA	
2	R2-2-T239	1018204.500	1892559.000	GS	1018204.404	1892558.932	717.478	-0.096	-0.068	NA	
2	R2-2-T24	1018030.600	1892980.400	713.1	1018032.196	1892981.539	713.427	1.596	1.139	0.327	Excavated to culvert edge
2	R2-2-T240	1018187.000	1892555.000	710.9	1018187.053	1892554.953	711.049	0.053	-0.047	0.149	
2	R2-2-T241	1018083.000	1892552.000	GS	1018083.095	1892552.013	714.999	0.095	0.013	NA	
2	R2-2-T242	1018124.000	1892552.000	GS	1018124.063	1892552.082	711.409	0.063	0.082	NA	
2	R2-2-T243	1018140.000	1892552.000	GS	1018140.026	1892551.995	711.202	0.026	-0.005	NA	
2	R2-2-T244	1018187.000	1892547.000	710.7	1018187.039	1892547.011	710.904	0.039	0.011	0.204	
2	R2-2-T245	1018062.800	1892543.500	GS	1018062.798	1892543.580	718.501	-0.002	0.080	NA	
2	R2-2-T246	1018097.500	1892532.000	GS	1018097.576	1892531.987	712.186	0.076	-0.013	NA	
2	R2-2-T247	1018122.500	1892532.000	710.2	1018122.471	1892531.972	711.387	-0.029	-0.028	1.187	K-M Directed to take all material as targeted
2	R2-2-T248	1018091.000	1892528.000	716.8	1018090.938	1892527.911	715.393	-0.062	-0.089	-1.407	Point was surveyed at existing ground surface
2	R2-2-T249	1018124.000	1892528.000	710.2	1018123.966	1892528.028	711.268	-0.034	0.028	1.068	K-M Directed to take all material as targeted

Δ Elevation &gt; 0.5 ft Blue      Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T25	1018050.000	1892978.400	713.4	1018049.980	1892978.302	713.549	-0.020	-0.098	0.149	
2	R2-2-T250	1018188.000	1892528.000	710.9	1018188.001	1892527.989	710.984	0.001	-0.011	0.084	
2	R2-2-T251	1018110.000	1892523.000	GS	1018109.961	1892522.934	711.679	-0.039	-0.066	NA	
2	R2-2-T252	1018095.000	1892522.500	GS	1018095.095	1892522.421	714.393	0.095	-0.079	NA	
2	R2-2-T253	1018124.000	1892520.000	710.2	1018123.993	1892520.013	711.315	-0.007	0.013	1.115	K-M Directed to take all material as targeted
2	R2-2-T254	1018140.000	1892520.000	710.5	1018140.022	1892520.065	710.986	0.022	0.065	0.486	
2	R2-2-T255	1018097.500	1892517.500	GS	1018097.606	1892517.497	714.794	0.106	-0.003	NA	
2	R2-2-T256	1018110.000	1892515.000	GS	1018110.033	1892515.089	711.770	0.033	0.089	NA	
2	R2-2-T257	1018187.000	1892514.500	710.8	1018186.982	1892514.427	711.040	-0.018	-0.073	0.240	
2	R2-2-T258	1018071.700	1892512.200	718.0	1018071.780	1892512.191	719.919	0.080	-0.009	1.919	K-M Directed to take all material as targeted
2	R2-2-T259	1018091.000	1892512.000	GS	1018091.041	1892511.930	716.854	0.041	-0.070	NA	
2	R2-2-T26	1018120.000	1892975.500	GS	1018119.909	1892975.530	714.885	-0.091	0.030	NA	
2	R2-2-T260	1018140.000	1892512.000	710.5	1018140.002	1892512.000	710.917	0.002	0.000	0.417	
2	R2-2-T261	1018107.000	1892510.000	GS	1018106.955	1892510.030	712.246	-0.045	0.030	NA	
2	R2-2-T262	1018140.000	1892505.000	710.7	1018139.968	1892505.028	710.733	-0.032	0.028	0.033	
2	R2-2-T263	1018091.000	1892504.000	GS	1018090.963	1892503.935	718.235	-0.037	-0.065	NA	
2	R2-2-T264	1018099.000	1892504.000	GS	1018099.022	1892503.896	716.531	0.022	-0.104	NA	
2	R2-2-T265	1018124.000	1892504.000	710.4	1018123.988	1892504.010	711.289	-0.012	0.010	0.889	K-M Directed to take all material as targeted
2	R2-2-T266	1018104.500	1892499.000	GS	1018104.483	1892499.011	714.977	-0.017	0.011	NA	
2	R2-2-T267	1018104.000	1892496.000	GS	1018103.973	1892495.996	715.124	-0.027	-0.004	NA	
2	R2-2-T268	1018124.000	1892496.000	710.4	1018124.081	1892495.972	711.437	0.081	-0.028	1.037	K-M Directed to take all material as targeted
2	R2-2-T269	1018188.000	1892496.000	710.8	1018188.036	1892495.956	712.331	0.036	-0.044	1.531	K-M Directed to take all material as targeted
2	R2-2-T270	1018080.200	1892495.600	GS	1018080.216	1892495.622	719.868	0.016	0.022	NA	
2	R2-2-T271	1018155.000	1892489.000	710.7	1018154.950	1892488.912	711.231	-0.050	-0.088	0.531	K-M Directed to take all material as targeted
2	R2-2-T272	1018124.000	1892488.000	710.4	1018124.094	1892487.912	711.401	0.094	-0.088	1.001	K-M Directed to take all material as targeted
2	R2-2-T273	1018140.000	1892488.000	710.4	1018140.073	1892487.997	710.535	0.073	-0.003	0.135	
2	R2-2-T274	1018155.000	1892480.000	710.6	1018154.943	1892479.986	711.226	-0.057	-0.014	0.626	K-M Directed to take all material as targeted
2	R2-2-T275	1018188.000	1892480.000	710.5	1018187.910	1892479.934	712.033	-0.090	-0.066	1.533	K-M Directed to take all material as targeted
2	R2-2-T276	1018106.500	1892475.500	719.2	1018106.514	1892475.559	717.100	0.014	0.059	-2.100	Point was surveyed at existing ground surface
2	R2-2-T277	1018140.000	1892472.000	GS	1018139.933	1892472.067	710.925	-0.067	0.067	NA	
2	R2-2-T278	1018155.000	1892472.000	GS	1018155.090	1892471.937	711.153	0.090	-0.063	NA	
2	R2-2-T279	1018107.500	1892464.000	717.6	1018107.486	1892464.037	717.731	-0.014	0.037	0.131	
2	R2-2-T28	1018067.000	1892969.000	714.3	1018066.955	1892968.978	714.517	-0.045	-0.022	0.217	
2	R2-2-T280	1018140.000	1892464.000	GS	1018140.086	1892463.909	711.159	0.086	-0.091	NA	
2	R2-2-T281	1018187.000	1892464.000	GS	1018186.901	1892464.000	711.917	-0.099	0.000	NA	
2	R2-2-T282	1018111.500	1892457.000	GS	1018111.464	1892457.016	717.185	-0.036	0.016	NA	
2	R2-2-T283	1018124.000	1892456.000	715.8	1018124.081	1892455.985	711.510	0.081	-0.015	-4.290	Point was surveyed at existing ground surface

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Overburden Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T284	1018140.000	1892454.000	GS	1018140.055	1892453.980	711.013	0.055	-0.020	NA	
2	R2-2-T285	1018155.000	1892454.000	GS	1018154.876	1892454.007	710.895	-0.124	0.007	NA	
2	R2-2-T286	1018171.000	1892454.000	GS	1018171.096	1892453.938	711.544	0.096	-0.062	NA	
2	R2-2-T287	1018202.500	1892446.500	711.3	1018202.392	1892446.518	712.138	-0.108	0.018	0.838	K-M Directed to take all material as targeted
2	R2-2-T288	1018092.300	1892444.500	718.8	1018092.244	1892444.590	716.978	-0.056	0.090	-1.822	Point was surveyed after excavation began
2	R2-2-T289	1018156.000	1892444.000	GS	1018155.956	1892444.003	711.012	-0.044	0.003	NA	
2	R2-2-T29	1017987.200	1892967.500	712.3	1017987.136	1892967.538	712.295	-0.064	0.038	-0.005	
2	R2-2-T290	1018172.000	1892444.000	710.3	1018171.937	1892444.038	711.468	-0.063	0.038	1.168	K-M Directed to take all material as targeted
2	R2-2-T291	1018132.000	1892435.500	710.7	1018132.046	1892435.568	711.439	0.046	0.068	0.739	K-M Directed to take all material as targeted
2	R2-2-T292	1018140.000	1892435.500	GS	1018140.017	1892435.533	711.190	0.017	0.033	NA	
2	R2-2-T293	1018156.000	1892435.500	GS	1018156.000	1892435.526	710.982	0.000	0.026	NA	
2	R2-2-T294	1018172.000	1892435.500	710.7	1018172.072	1892435.530	711.430	0.072	0.030	0.730	K-M Directed to take all material as targeted
2	R2-2-T295	1018105.300	1892435.200	716.5	1018105.374	1892435.258	718.709	0.074	0.058	2.209	Taken as TM due to utilities
2	R2-2-T296	1018203.500	1892430.500	711.1	1018203.461	1892430.475	712.057	-0.039	-0.025	0.957	K-M Directed to take all material as targeted
2	R2-2-T297	1018124.000	1892429.500	716.5	1018124.044	1892429.405	714.534	0.044	-0.095	-1.966	Point was surveyed at existing ground surface
2	R2-2-T298	1018140.000	1892427.000	GS	1018140.000	1892426.899	711.286	0.000	-0.101	NA	
2	R2-2-T299	1018108.100	1892418.300	715.8	1018108.156	1892418.263	719.303	0.056	-0.037	3.503	Taken as TM due to utilities
2	R2-2-T3	1018074.000	1893027.500	716.7	1018074.038	1893027.558	716.780	0.038	0.058	0.080	
2	R2-2-T30	1018132.000	1892967.500	GS	1018132.021	1892967.547	714.647	0.021	0.047	NA	
2	R2-2-T300	1018215.500	1892414.500	711.2	1018215.548	1892414.590	713.354	0.048	0.090	2.154	K-M Directed to take all material as targeted
2	R2-2-T301	1018124.500	1892413.500	719.2	1018124.542	1892413.449	715.591	0.042	-0.051	-3.609	Point was surveyed at existing ground surface
2	R2-2-T302	1018140.000	1892410.000	710.6	1018140.050	1892410.068	711.397	0.050	0.068	0.797	K-M Directed to take all material as targeted
2	R2-2-T303	1018221.000	1892406.500	711.2	1018220.966	1892406.437	714.086	-0.034	-0.063	2.886	K-M Directed to take all material as targeted
2	R2-2-T304	1018128.000	1892401.500	711.1	1018128.012	1892401.504	711.212	0.012	0.004	0.112	
2	R2-2-T305	1018140.000	1892401.500	710.7	1018140.056	1892401.401	710.920	0.056	-0.099	0.220	
2	R2-2-T306	1018221.000	1892398.000	710.7	1018221.016	1892398.046	712.754	0.016	0.046	2.054	K-M Directed to take all material as targeted
2	R2-2-T307	1018112.600	1892396.800	716.1	1018112.582	1892396.896	719.288	-0.018	0.096	3.188	Taken as TM due to utilities
2	R2-2-T308	1018216.500	1892389.000	710.7	1018216.525	1892389.059	712.137	0.025	0.059	1.437	K-M Directed to take all material as targeted
2	R2-2-T309	1018128.000	1892384.500	717.1	1018127.910	1892384.531	716.138	-0.090	0.031	-0.962	Point was surveyed at existing ground surface
2	R2-2-T31	1018077.000	1892966.000	GS	1018076.980	1892965.966	713.360	-0.020	-0.034	NA	
2	R2-2-T310	1018140.000	1892384.500	710.7	1018140.072	1892384.469	710.674	0.072	-0.031	-0.026	
2	R2-2-T311	1018212.000	1892384.500	710.7	1018211.977	1892384.430	711.566	-0.023	-0.070	0.866	K-M Directed to take all material as targeted
2	R2-2-T312	1018216.500	1892380.500	710.7	1018216.546	1892380.569	711.714	0.046	0.069	1.014	K-M Directed to take all material as targeted
2	R2-2-T313	1018116.600	1892376.100	717.1	1018116.509	1892376.106	719.299	-0.091	0.006	2.199	Taken as TM due to utilities
2	R2-2-T314	1018128.000	1892376.000	717.1	1018127.963	1892376.052	716.015	-0.037	0.052	-1.085	Point was surveyed at existing ground surface
2	R2-2-T315	1018140.000	1892376.000	710.7	1018140.001	1892375.984	711.550	0.001	-0.016	0.850	K-M Directed to take all material as targeted
2	R2-2-T316	1018225.000	1892376.000	GS	1018225.021	1892375.979	712.142	0.021	-0.021	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T317	1018230.000	1892376.000	GS	1018229.982	1892376.004	713.886	-0.018	0.004	NA	
2	R2-2-T318	1018141.000	1892367.500	710.7	1018141.002	1892367.642	711.584	0.002	0.142	0.884	K-M Directed to take all material as targeted
2	R2-2-T319	1018156.000	1892367.500	710.7	1018155.981	1892367.429	711.321	-0.019	-0.071	0.621	K-M Directed to take all material as targeted
2	R2-2-T32	1018123.500	1892966.000	GS	1018123.516	1892965.959	714.341	0.016	-0.041	NA	
2	R2-2-T320	1018232.500	1892367.000	GS	1018232.499	1892366.997	714.385	-0.001	-0.003	NA	
2	R2-2-T321	1018232.000	1892361.500	GS	1018231.961	1892361.539	714.336	-0.039	0.039	NA	
2	R2-2-T322	1018117.000	1892359.000	GS	1018117.035	1892358.991	718.951	0.035	-0.009	NA	
2	R2-2-T323	1018129.000	1892359.000	GS	1018129.046	1892358.951	716.815	0.046	-0.049	NA	
2	R2-2-T324	1018156.000	1892359.000	710.4	1018155.992	1892358.946	711.263	-0.008	-0.054	0.863	K-M Directed to take all material as targeted
2	R2-2-T325	1018223.500	1892357.500	GS	1018223.491	1892357.557	711.542	-0.009	0.057	NA	
2	R2-2-T326	1018141.000	1892350.500	711.0	1018140.894	1892350.457	711.697	-0.106	-0.043	0.697	K-M Directed to take all material as targeted
2	R2-2-T327	1018156.000	1892350.500	711.0	1018156.003	1892350.511	711.379	0.003	0.011	0.379	K-M Directed to take all material as targeted
2	R2-2-T328	1018172.000	1892350.500	710.6	1018172.051	1892350.633	711.119	0.051	0.133	0.519	K-M Directed to take all material as targeted
2	R2-2-T329	1018188.000	1892350.500	710.6	1018187.953	1892350.415	711.519	-0.047	-0.085	0.919	K-M Directed to take all material as targeted
2	R2-2-T33	1018060.000	1892965.900	713.4	1018059.964	1892965.852	713.643	-0.036	-0.048	0.243	
2	R2-2-T330	1018231.500	1892349.000	711.3	1018231.546	1892349.041	712.291	0.046	0.041	0.991	K-M Directed to take all material as targeted
2	R2-2-T331	1018245.000	1892348.500	GS	1018245.000	1892348.568	715.447	0.000	0.068	NA	
2	R2-2-T332	1018117.400	1892345.400	GS	1018117.324	1892345.372	718.401	-0.076	-0.028	NA	
2	R2-2-T333	1018128.000	1892342.000	GS	1018128.051	1892342.098	717.266	0.051	0.098	NA	
2	R2-2-T334	1018140.000	1892342.000	711.0	1018139.947	1892341.943	711.661	-0.053	-0.057	0.661	K-M Directed to take all material as targeted
2	R2-2-T335	1018172.000	1892342.000	710.6	1018172.064	1892342.132	711.210	0.064	0.132	0.610	K-M Directed to take all material as targeted
2	R2-2-T336	1018188.000	1892342.000	710.6	1018188.028	1892342.007	711.367	0.028	0.007	0.767	K-M Directed to take all material as targeted
2	R2-2-T337	1018128.000	1892333.500	716.2	1018127.983	1892333.594	718.161	-0.017	0.094	1.961	K-M Directed to take all material as targeted
2	R2-2-T338	1018132.000	1892333.500	716.2	1018132.014	1892333.430	715.563	0.014	-0.070	-0.637	Point was surveyed at existing ground surface
2	R2-2-T339	1018148.000	1892333.500	711.0	1018148.002	1892333.506	711.620	0.002	0.006	0.620	K-M Directed to take all material as targeted
2	R2-2-T34	1018111.500	1892964.500	GS	1018111.495	1892964.479	714.490	-0.005	-0.021	NA	
2	R2-2-T340	1018156.000	1892333.500	711.0	1018156.000	1892333.498	711.432	0.000	-0.002	0.432	K-M Directed to take all material as targeted
2	R2-2-T341	1018118.400	1892328.600	716.2	1018118.372	1892328.680	718.770	-0.028	0.080	2.570	K-M Directed to take all material as targeted
2	R2-2-T342	1018140.000	1892325.000	716.2	1018139.980	1892324.978	712.301	-0.020	-0.022	-3.899	Point was surveyed at existing ground surface
2	R2-2-T343	1018156.000	1892325.000	710.7	1018155.994	1892324.975	711.510	-0.006	-0.025	0.810	K-M Directed to take all material as targeted
2	R2-2-T344	1018172.000	1892325.000	710.7	1018171.996	1892324.992	711.268	-0.004	-0.008	0.568	K-M Directed to take all material as targeted
2	R2-2-T345	1018188.000	1892325.000	710.6	1018188.008	1892325.011	711.288	0.008	0.011	0.688	K-M Directed to take all material as targeted
2	R2-2-T346	1018246.500	1892317.000	GS	1018246.479	1892316.952	714.843	-0.021	-0.048	NA	
2	R2-2-T347	1018220.000	1892316.500	710.7	1018219.956	1892316.470	711.659	-0.044	-0.030	0.959	K-M Directed to take all material as targeted
2	R2-2-T348	1018234.000	1892316.500	713.3	1018234.048	1892316.462	711.979	0.048	-0.038	-1.321	Point was surveyed at existing ground surface
2	R2-2-T349	1018119.900	1892309.200	716.4	1018119.868	1892309.177	718.853	-0.032	-0.023	2.453	K-M Directed to take all material as targeted
2	R2-2-T35	1017996.500	1892964.300	712.6	1017996.444	1892964.270	712.546	-0.056	-0.030	-0.054	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T350	1018248.500	1892309.000	GS	1018248.468	1892308.964	714.838	-0.032	-0.036	NA	
2	R2-2-T351	1018140.000	1892308.000	716.4	1018140.072	1892308.040	713.164	0.072	0.040	-3.236	Point was surveyed at existing ground surface
2	R2-2-T352	1018156.000	1892308.000	710.8	1018155.993	1892307.954	711.611	-0.007	-0.046	0.811	K-M Directed to take all material as targeted
2	R2-2-T353	1018172.000	1892308.000	710.8	1018171.983	1892307.976	711.270	-0.017	-0.024	0.470	K-M Directed to take all material as targeted
2	R2-2-T354	1018188.000	1892308.000	710.5	1018188.005	1892307.992	711.192	0.005	-0.008	0.692	K-M Directed to take all material as targeted
2	R2-2-T355	1018220.000	1892308.000	710.7	1018219.986	1892307.991	711.782	-0.014	-0.009	1.082	K-M Directed to take all material as targeted
2	R2-2-T356	1018236.500	1892300.000	710.9	1018236.384	1892300.038	711.797	-0.116	0.038	0.897	K-M Directed to take all material as targeted
2	R2-2-T357	1018144.000	1892299.500	GS	1018143.982	1892299.415	712.571	-0.018	-0.085	NA	
2	R2-2-T358	1018156.000	1892299.500	710.8	1018156.008	1892299.517	711.648	0.008	0.017	0.848	K-M Directed to take all material as targeted
2	R2-2-T359	1018164.000	1892299.500	710.8	1018164.021	1892299.530	711.479	0.021	0.030	0.679	K-M Directed to take all material as targeted
2	R2-2-T36	1018041.000	1892961.800	713.4	1018044.292	1892960.107	712.640	3.292	-1.693	-0.760	Point was surveyed at existing ground surface
2	R2-2-T360	1018180.000	1892299.500	710.5	1018180.093	1892299.579	711.165	0.093	0.079	0.665	K-M Directed to take all material as targeted
2	R2-2-T361	1018220.000	1892299.500	710.9	1018219.951	1892299.463	712.426	-0.049	-0.037	1.526	K-M Directed to take all material as targeted
2	R2-2-T362	1018249.500	1892299.500	713.5	1018249.465	1892299.488	715.025	-0.035	-0.012	1.525	K-M Directed to take all material as targeted
2	R2-2-T363	1018187.000	1892299.000	710.5	1018187.050	1892299.035	711.136	0.050	0.035	0.636	K-M Directed to take all material as targeted
2	R2-2-T364	1018124.200	1892291.000	GS	1018124.262	1892290.938	718.375	0.062	-0.062	NA	
2	R2-2-T365	1018144.000	1892291.000	GS	1018144.050	1892290.961	712.702	0.050	-0.039	NA	
2	R2-2-T366	1018172.000	1892291.000	710.5	1018172.016	1892291.013	711.297	0.016	0.013	0.797	K-M Directed to take all material as targeted
2	R2-2-T367	1018204.000	1892282.500	710.6	1018203.984	1892282.495	711.346	-0.016	-0.005	0.746	K-M Directed to take all material as targeted
2	R2-2-T368	1018187.000	1892282.000	710.6	1018187.032	1892281.949	710.643	0.032	-0.051	0.043	
2	R2-2-T369	1018257.500	1892281.500	GS	1018257.548	1892281.504	715.930	0.048	0.004	NA	
2	R2-2-T37	1018048.000	1892958.900	713.4	1018048.049	1892958.977	712.919	0.049	0.077	-0.481	Point was surveyed at existing ground surface
2	R2-2-T370	1018128.300	1892274.000	GS	1018128.374	1892274.037	717.993	0.074	0.037	NA	
2	R2-2-T371	1018144.000	1892274.000	GS	1018144.068	1892273.989	714.119	0.068	-0.011	NA	
2	R2-2-T372	1018172.000	1892274.000	710.6	1018172.079	1892274.021	711.374	0.079	0.021	0.774	K-M Directed to take all material as targeted
2	R2-2-T373	1018188.000	1892274.000	710.6	1018187.935	1892273.988	711.171	-0.065	-0.012	0.571	K-M Directed to take all material as targeted
2	R2-2-T374	1018204.000	1892274.000	710.6	1018203.904	1892273.986	711.327	-0.096	-0.014	0.727	K-M Directed to take all material as targeted
2	R2-2-T375	1018256.000	1892273.000	GS	1018256.020	1892272.950	715.593	0.020	-0.050	NA	
2	R2-2-T376	1018228.000	1892265.500	710.5	1018228.024	1892265.499	711.608	0.024	-0.001	1.108	K-M Directed to take all material as targeted
2	R2-2-T377	1018253.000	1892265.500	GS	1018252.982	1892265.467	715.059	-0.018	-0.033	NA	
2	R2-2-T378	1018166.000	1892263.500	710.6	1018166.051	1892263.496	711.542	0.051	-0.004	0.942	K-M Directed to take all material as targeted
2	R2-2-T379	1018208.000	1892259.000	GS	1018208.006	1892258.976	711.275	0.006	-0.024	NA	
2	R2-2-T38	1018084.000	1892958.500	GS	1018083.933	1892958.456	712.551	-0.067	-0.044	NA	
2	R2-2-T380	1018192.000	1892256.500	GS	1018191.983	1892256.507	711.289	-0.017	0.007	NA	
2	R2-2-T381	1018157.000	1892254.800	GS	1018157.080	1892254.742	712.038	0.080	-0.058	NA	
2	R2-2-T382	1018133.200	1892253.200	GS	1018133.172	1892253.309	717.883	-0.028	0.109	NA	
2	R2-2-T383	1018145.500	1892253.000	GS	1018145.490	1892253.088	715.189	-0.010	0.088	NA	

Δ Elevation > 0.5 ft Blue  
 Δ Elevation 0.5 to -0.25 ft Green  
 Δ Elevation < -0.25 ft Red  
 Δ Easting/Northing < or = 0.2 ft Green  
 Δ Easting/Northing > 0.2 ft Blue

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

## Bottom of Overburden Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T384	1018198.000	1892249.000	709.9	1018197.970	1892249.008	711.123	-0.030	0.008	1.223	K-M Directed to take all material as targeted
2	R2-2-T385	1018206.000	1892249.000	710.5	1018205.993	1892249.001	711.309	-0.007	0.001	0.809	K-M Directed to take all material as targeted
2	R2-2-T386	1018145.500	1892244.500	GS	1018145.481	1892244.483	715.147	-0.019	-0.017	NA	
2	R2-2-T387	1018135.200	1892240.000	GS	1018135.153	1892239.957	717.384	-0.047	-0.043	NA	
2	R2-2-T388	1018156.000	1892240.000	711.2	1018155.969	1892240.050	711.961	-0.031	0.050	0.761	K-M Directed to take all material as targeted
2	R2-2-T389	1018220.000	1892240.000	710.5	1018219.958	1892240.012	711.530	-0.042	0.012	1.030	K-M Directed to take all material as targeted
2	R2-2-T39	1018092.000	1892958.500	GS	1018091.960	1892958.436	713.682	-0.040	-0.064	NA	
2	R2-2-T390	1018148.000	1892231.500	GS	1018148.076	1892231.511	714.838	0.076	0.011	NA	
2	R2-2-T391	1018156.000	1892231.500	GS	1018155.994	1892231.527	711.892	-0.006	0.027	NA	
2	R2-2-T392	1018137.800	1892223.000	GS	1018137.901	1892223.034	717.075	0.101	0.034	NA	
2	R2-2-T393	1018236.000	1892223.000	710.8	1018236.069	1892222.968	711.739	0.069	-0.032	0.939	K-M Directed to take all material as targeted
2	R2-2-T394	1018169.000	1892215.000	GS	1018168.992	1892215.034	711.645	-0.008	0.034	NA	
2	R2-2-T395	1018220.000	1892214.500	710.5	1018220.096	1892214.438	711.419	0.096	-0.062	0.919	K-M Directed to take all material as targeted
2	R2-2-T396	1018236.000	1892214.500	710.8	1018236.018	1892214.489	711.704	0.018	-0.011	0.904	K-M Directed to take all material as targeted
2	R2-2-T397	1018159.000	1892211.000	GS	1018159.162	1892211.042	712.086	0.162	0.042	NA	
2	R2-2-T398	1018140.500	1892206.000	GS	1018140.501	1892205.942	716.924	0.001	-0.058	NA	
2	R2-2-T399	1018156.000	1892206.000	GS	1018155.958	1892205.944	713.343	-0.042	-0.056	NA	
2	R2-2-T4	1018094.000	1893023.600	715.1	1018093.962	1893023.645	715.212	-0.038	0.045	0.112	
2	R2-2-T40	1018135.500	1892958.500	GS	1018135.484	1892958.544	714.738	-0.016	0.044	NA	
2	R2-2-T400	1018172.000	1892206.000	GS	1018171.983	1892205.998	711.660	-0.017	-0.002	NA	
2	R2-2-T401	1018220.000	1892206.000	710.5	1018219.984	1892205.963	711.303	-0.016	-0.037	0.803	K-M Directed to take all material as targeted
2	R2-2-T402	1018220.000	1892198.000	710.8	1018220.017	1892197.867	711.367	0.017	-0.133	0.567	K-M Directed to take all material as targeted
2	R2-2-T403	1018236.000	1892198.000	710.8	1018235.969	1892197.984	711.624	-0.031	-0.016	0.824	K-M Directed to take all material as targeted
2	R2-2-T404	1018172.500	1892191.500	GS	1018172.554	1892191.511	711.580	0.054	0.011	NA	
2	R2-2-T405	1018143.000	1892190.000	GS	1018143.066	1892190.030	716.824	0.066	0.030	NA	
2	R2-2-T406	1018156.000	1892190.000	GS	1018156.070	1892190.073	714.539	0.070	0.073	NA	
2	R2-2-T407	1018236.000	1892190.000	710.8	1018235.990	1892189.967	711.631	-0.010	-0.033	0.831	K-M Directed to take all material as targeted
2	R2-2-T408	1018162.000	1892187.000	GS	1018161.960	1892186.958	712.291	-0.040	-0.042	NA	
2	R2-2-T409	1018164.000	1892182.000	GS	1018164.061	1892182.104	712.016	0.061	0.104	NA	
2	R2-2-T41	1018058.500	1892958.400	713.4	1018058.436	1892958.413	713.601	-0.064	0.013	0.201	
2	R2-2-T410	1018172.000	1892182.000	711.0	1018172.010	1892181.976	711.651	0.010	-0.024	0.651	K-M Directed to take all material as targeted
2	R2-2-T411	1018204.000	1892182.000	710.5	1018203.994	1892182.028	711.160	-0.006	0.028	0.660	K-M Directed to take all material as targeted
2	R2-2-T412	1018220.000	1892182.000	GS	1018220.059	1892181.965	711.303	0.059	-0.035	NA	
2	R2-2-T413	1018145.600	1892174.100	GS	1018145.645	1892174.109	716.891	0.045	0.009	NA	
2	R2-2-T414	1018204.000	1892174.000	710.5	1018203.996	1892174.017	711.175	-0.004	0.017	0.675	K-M Directed to take all material as targeted
2	R2-2-T415	1018220.000	1892174.000	GS	1018220.001	1892174.002	711.296	0.001	0.002	NA	
2	R2-2-T416	1018236.000	1892174.000	GS	1018235.994	1892173.987	711.627	-0.006	-0.013	NA	

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T417	1018204.000	1892166.000	GS	1018203.964	1892165.997	711.175	-0.036	-0.003	NA	
2	R2-2-T418	1018220.000	1892166.000	GS	1018219.976	1892166.016	711.239	-0.024	0.016	NA	
2	R2-2-T419	1018236.000	1892156.000	710.1	1018235.911	1892156.001	711.485	-0.089	0.001	1.385	K-M Directed to take all material as targeted
2	R2-2-T42	1018166.500	1892957.000	715.6	1018166.327	1892957.033	715.965	-0.173	0.033	0.365	
2	R2-2-T420	1018251.000	1892149.500	711.1	1018250.998	1892149.462	712.453	-0.002	-0.038	1.353	K-M Directed to take all material as targeted
2	R2-2-T421	1018220.000	1892149.000	710.4	1018220.003	1892148.979	711.223	0.003	-0.021	0.823	K-M Directed to take all material as targeted
2	R2-2-T422	1018228.000	1892149.000	710.1	1018227.994	1892149.031	711.289	-0.006	0.031	1.189	K-M Directed to take all material as targeted
2	R2-2-T423	1018244.000	1892149.000	711.1	1018243.999	1892149.015	711.779	-0.001	0.015	0.679	K-M Directed to take all material as targeted
2	R2-2-T424	1018251.000	1892142.500	711.1	1018251.000	1892142.557	712.982	0.000	0.057	1.882	K-M Directed to take all material as targeted
2	R2-2-T425	1018151.000	1892142.300	GS	1018151.068	1892142.379	716.993	0.068	0.079	NA	
2	R2-2-T426	1018220.000	1892142.000	710.4	1018220.001	1892141.995	711.214	0.001	-0.005	0.814	K-M Directed to take all material as targeted
2	R2-2-T427	1018236.000	1892142.000	711.1	1018236.001	1892141.993	711.446	0.001	-0.007	0.346	K-M Directed to take all material as targeted
2	R2-2-T428	1018251.000	1892134.500	711.1	1018251.079	1892134.462	712.080	0.079	-0.038	0.980	K-M Directed to take all material as targeted
2	R2-2-T429	1018220.000	1892134.000	710.5	1018219.989	1892134.052	711.199	-0.011	0.052	0.699	K-M Directed to take all material as targeted
2	R2-2-T43	1018115.000	1892955.000	GS	1018115.057	1892954.920	714.190	0.057	-0.080	NA	
2	R2-2-T430	1018230.500	1892134.000	GS	1018230.423	1892133.900	711.357	-0.077	-0.100	NA	
2	R2-2-T431	1018244.000	1892134.000	711.1	1018243.999	1892134.013	711.667	-0.001	0.013	0.567	K-M Directed to take all material as targeted
2	R2-2-T432	1018238.500	1892126.000	GS	1018238.458	1892125.937	711.477	-0.042	-0.063	NA	
2	R2-2-T433	1018252.000	1892110.000	GS	1018251.960	1892109.962	711.805	-0.040	-0.038	NA	
2	R2-2-T434	1018164.000	1892102.000	713.8	1018164.039	1892102.043	715.929	0.039	0.043	2.129	K-M Directed to take all material as targeted
2	R2-2-T435	1018176.000	1892102.000	711.5	1018176.041	1892102.088	712.168	0.041	0.088	0.668	K-M Directed to take all material as targeted
2	R2-2-T436	1018249.500	1892100.500	GS	1018249.430	1892100.574	711.629	-0.070	0.074	NA	
2	R2-2-T437	1018164.000	1892094.000	716.4	1018164.091	1892093.962	716.173	0.091	-0.038	-0.227	
2	R2-2-T438	1018176.000	1892094.000	711.5	1018176.051	1892094.076	711.785	0.051	0.076	0.285	
2	R2-2-T439	1018247.000	1892090.500	GS	1018247.005	1892090.501	711.490	0.005	0.001	NA	
2	R2-2-T44	1018028.400	1892953.600	710.7	1018027.456	1892950.558	710.815	-0.944	-3.042	0.115	Excavated to culvert edge
2	R2-2-T440	1018174.000	1892090.000	GS	1018173.989	1892090.019	713.164	-0.011	0.019	NA	
2	R2-2-T441	1018168.000	1892086.000	GS	1018168.083	1892085.968	716.116	0.083	-0.032	NA	
2	R2-2-T442	1018204.000	1892086.000	GS	1018203.935	1892085.988	711.310	-0.065	-0.012	NA	
2	R2-2-T443	1018228.000	1892086.000	GS	1018227.903	1892086.021	711.151	-0.097	0.021	NA	
2	R2-2-T444	1018159.300	1892085.600	GS	1018159.322	1892085.641	717.073	0.022	0.041	NA	
2	R2-2-T445	1018186.000	1892082.000	GS	1018185.956	1892082.050	711.608	-0.044	0.050	NA	
2	R2-2-T446	1018160.800	1892078.000	GS	1018160.875	1892078.021	717.207	0.075	0.021	NA	
2	R2-2-T447	1018220.000	1892078.000	GS	1018219.939	1892078.051	710.913	-0.061	0.051	NA	
2	R2-2-T448	1018236.000	1892078.000	GS	1018235.954	1892077.995	711.200	-0.046	-0.005	NA	
2	R2-2-T449	1018252.000	1892078.000	GS	1018252.072	1892077.947	711.583	0.072	-0.053	NA	
2	R2-2-T45	1017993.800	1892953.200	712.4	1017993.764	1892953.171	712.360	-0.036	-0.029	-0.040	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red



# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T450	1018203.500	1892074.000	GS	1018203.565	1892074.007	711.311	0.065	0.007	NA	
2	R2-2-T451	1018212.000	1892070.000	GS	1018211.986	1892069.978	711.117	-0.014	-0.022	NA	
2	R2-2-T452	1018252.000	1892070.000	GS	1018252.081	1892069.984	711.626	0.081	-0.016	NA	
2	R2-2-T453	1018244.000	1892069.000	GS	1018243.951	1892068.998	711.385	-0.049	-0.002	NA	
2	R2-2-T454	1018174.500	1892067.000	716.3	1018174.521	1892066.993	714.381	0.021	-0.007	-1.919	Point was surveyed at existing ground surface
2	R2-2-T455	1018188.500	1892067.000	711.4	1018188.537	1892067.069	711.539	0.037	0.069	0.139	
2	R2-2-T456	1018163.000	1892062.000	716.3	1018163.040	1892062.093	717.192	0.040	0.093	0.892	K-M Directed to take all material as targeted
2	R2-2-T457	1018173.000	1892062.000	716.3	1018172.957	1892061.916	715.364	-0.043	-0.084	-0.936	Point was surveyed at existing ground surface
2	R2-2-T458	1018220.000	1892062.000	GS	1018219.967	1892061.975	711.148	-0.033	-0.025	NA	
2	R2-2-T459	1018236.000	1892061.000	GS	1018235.976	1892061.035	711.127	-0.024	0.035	NA	
2	R2-2-T46	1018147.000	1892953.000	GS	1018146.992	1892952.971	715.529	-0.008	-0.029	NA	
2	R2-2-T460	1018179.000	1892054.000	GS	1018179.007	1892054.065	715.080	0.007	0.065	NA	
2	R2-2-T461	1018190.500	1892053.000	GS	1018190.590	1892052.930	711.875	0.090	-0.070	NA	
2	R2-2-T462	1018220.000	1892046.000	710.4	1018219.976	1892045.872	710.863	-0.024	-0.128	0.463	K-M Directed to take all material as targeted
2	R2-2-T463	1018236.000	1892046.000	710.4	1018236.051	1892045.921	710.203	0.051	-0.079	-0.197	
2	R2-2-T464	1018190.500	1892045.000	GS	1018190.511	1892045.039	713.646	0.011	0.039	NA	
2	R2-2-T465	1018204.000	1892042.000	GS	1018204.070	1892041.915	711.447	0.070	-0.085	NA	
2	R2-2-T466	1018220.000	1892037.000	GS	1018219.974	1892037.006	711.448	-0.026	0.006	NA	
2	R2-2-T467	1018208.000	1892034.000	GS	1018208.005	1892034.012	712.466	0.005	0.012	NA	
2	R2-2-T468	1018188.100	1892029.900	GS	1018188.025	1892029.964	716.853	-0.075	0.064	NA	
2	R2-2-T469	1018174.000	1892029.300	GS	1018174.041	1892029.208	717.722	0.041	-0.092	NA	
2	R2-2-T47	1018134.500	1892950.500	GS	1018134.493	1892950.494	714.798	-0.007	-0.006	NA	
2	R2-2-T470	1018187.900	1892022.300	GS	1018187.913	1892022.336	717.807	0.013	0.036	NA	
2	R2-2-T471	1018200.200	1892022.300	GS	1018200.167	1892022.395	715.463	-0.033	0.095	NA	
2	R2-2-T472	1018204.000	1892014.000	GS	1018204.056	1892014.001	715.652	0.056	0.001	NA	
2	R2-2-T473	1018177.800	1892013.600	GS	1018177.797	1892013.594	717.941	-0.003	-0.006	NA	
2	R2-2-T474	1018179.100	1892000.600	GS	1018179.152	1892000.599	718.572	0.052	-0.001	NA	
2	R2-2-T475	1018201.400	1892000.600	GS	1018201.453	1892000.575	717.349	0.053	-0.025	NA	
2	R2-2-T48	1017989.500	1892949.500	712.4	1017989.590	1892949.421	712.590	0.090	-0.079	0.190	
2	R2-2-T49	1018036.000	1892949.000	710.7	1018036.119	1892948.978	708.983	0.119	-0.022	-1.717	Point was surveyed at existing ground surface
2	R2-2-T5	1018069.900	1893019.400	715.4	1018069.947	1893019.390	715.629	0.047	-0.010	0.229	
2	R2-2-T50	1018009.200	1892944.700	712.0	1018009.191	1892944.720	711.887	-0.009	0.020	-0.113	
2	R2-2-T51	1018015.600	1892944.500	712.0	1018015.641	1892944.498	712.417	0.041	-0.002	0.417	
2	R2-2-T52	1018049.500	1892942.000	705.9	1018049.517	1892941.897	706.323	0.017	-0.103	0.423	
2	R2-2-T53	1017980.700	1892941.900	713.3	1017980.733	1892941.824	713.670	0.033	-0.076	0.370	
2	R2-2-T54	1018068.000	1892941.500	GS	1018068.049	1892941.532	711.758	0.049	0.032	NA	
2	R2-2-T55	1018085.000	1892941.500	GS	1018084.958	1892941.505	712.110	-0.042	0.005	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T56	1018099.000	1892941.500	GS	1018099.034	1892941.469	711.913	0.034	-0.031	NA	
2	R2-2-T57	1018023.500	1892941.000	710.7	1018023.483	1892940.973	710.811	-0.017	-0.027	0.111	
2	R2-2-T58	1018032.500	1892941.000	710.7	1018032.568	1892941.059	708.388	0.068	0.059	-2.312	Point was surveyed at existing ground surface
2	R2-2-T59	1018122.000	1892941.000	GS	1018121.981	1892940.975	714.711	-0.019	-0.025	NA	
2	R2-2-T6	1018062.700	1893015.400	715.4	1018062.646	1893015.417	715.650	-0.054	0.017	0.250	
2	R2-2-T60	1018002.700	1892940.500	712.4	1018002.717	1892940.473	712.412	0.017	-0.027	0.012	
2	R2-2-T61	1018106.500	1892937.000	711.7	1018106.475	1892937.024	711.986	-0.025	0.024	0.286	
2	R2-2-T62	1018113.000	1892937.000	711.7	1018113.137	1892936.908	713.456	0.137	-0.092	1.756	K-M Directed to take all material as targeted
2	R2-2-T63	1017998.400	1892936.800	713.3	1017998.374	1892936.733	713.480	-0.026	-0.067	0.180	
2	R2-2-T64	1018046.000	1892934.000	705.9	1018046.102	1892933.946	705.105	0.102	-0.054	-0.795	Point was surveyed at existing ground surface
2	R2-2-T65	1018118.000	1892933.000	711.7	1018118.061	1892932.979	714.141	0.061	-0.021	2.441	K-M Directed to take all material as targeted
2	R2-2-T66	1018166.500	1892932.500	GS	1018166.507	1892932.448	716.979	0.007	-0.052	NA	
2	R2-2-T67	1018130.000	1892927.500	GS	1018129.951	1892927.475	714.759	-0.049	-0.025	NA	
2	R2-2-T68	1018006.600	1892926.700	GS	1018006.600	1892926.731	715.059	0.000	0.031	NA	
2	R2-2-T69	1018019.000	1892926.500	GS	1018019.001	1892926.518	712.365	0.001	0.018	NA	
2	R2-2-T7	1018100.000	1893011.500	715.0	1018099.966	1893011.494	715.161	-0.034	-0.006	0.161	
2	R2-2-T70	1018045.500	1892926.500	705.9	1018045.547	1892926.539	705.897	0.047	0.039	-0.003	
2	R2-2-T71	1018053.500	1892926.500	705.9	1018053.580	1892926.511	706.160	0.080	0.011	0.260	
2	R2-2-T72	1018070.000	1892926.500	GS	1018070.065	1892926.518	711.023	0.065	0.018	NA	
2	R2-2-T73	1018078.500	1892926.500	GS	1018078.539	1892926.555	711.486	0.039	0.055	NA	
2	R2-2-T74	1017991.200	1892921.300	GS	1017991.141	1892921.358	717.544	-0.059	0.058	NA	
2	R2-2-T75	1018028.000	1892919.000	GS	1018028.067	1892918.954	711.351	0.067	-0.046	NA	
2	R2-2-T76	1018078.500	1892919.000	GS	1018078.451	1892919.067	711.080	-0.049	0.067	NA	
2	R2-2-T77	1018115.000	1892919.000	GS	1018114.960	1892918.989	711.834	-0.040	-0.011	NA	
2	R2-2-T78	1018172.000	1892917.500	GS	1018172.065	1892917.456	716.918	0.065	-0.044	NA	
2	R2-2-T79	1018127.000	1892916.000	GS	1018126.965	1892916.068	714.482	-0.035	0.068	NA	
2	R2-2-T8	1018055.700	1893011.400	715.4	1018055.785	1893011.379	715.574	0.085	-0.021	0.174	
2	R2-2-T80	1018035.500	1892911.500	GS	1018035.516	1892911.500	711.423	0.016	0.000	NA	
2	R2-2-T81	1018051.500	1892911.500	GS	1018051.552	1892911.431	708.851	0.052	-0.069	NA	
2	R2-2-T82	1018076.500	1892911.500	GS	1018076.543	1892911.502	710.462	0.043	0.002	NA	
2	R2-2-T83	1018085.000	1892911.500	GS	1018085.048	1892911.463	711.052	0.048	-0.037	NA	
2	R2-2-T84	1018058.000	1892904.000	GS	1018057.968	1892903.976	709.906	-0.032	-0.024	NA	
2	R2-2-T85	1018091.000	1892904.000	GS	1018091.032	1892903.931	711.279	0.032	-0.069	NA	
2	R2-2-T86	1018107.500	1892904.000	GS	1018107.512	1892904.020	712.698	0.012	0.020	NA	
2	R2-2-T87	1017984.900	1892902.700	GS	1017984.885	1892902.675	717.507	-0.015	-0.025	NA	
2	R2-2-T88	1018175.000	1892899.500	715.6	1018175.052	1892899.447	715.833	0.052	-0.053	0.233	
2	R2-2-T89	1018127.500	1892899.000	GS	1018127.445	1892899.000	712.404	-0.055	0.000	NA	

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

12/22/05

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-T9	1018077.400	1893009.400	715.4	1018077.471	1893009.434	715.655	0.071	0.034	0.255	
2	R2-2-T90	1018091.000	1892897.000	GS	1018091.027	1892896.957	711.298	0.027	-0.043	NA	
2	R2-2-T91	1018099.000	1892897.000	GS	1018099.023	1892897.008	711.787	0.023	0.008	NA	
2	R2-2-T92	1018116.000	1892897.000	GS	1018116.062	1892896.943	712.089	0.062	-0.057	NA	
2	R2-2-T93	1018107.500	1892890.000	GS	1018107.562	1892890.046	712.703	0.062	0.046	NA	
2	R2-2-T94	1018057.000	1892889.000	GS	1018056.902	1892888.984	710.811	-0.098	-0.016	NA	
2	R2-2-T95	1018135.500	1892884.500	GS	1018135.456	1892884.499	713.701	-0.044	-0.001	NA	
2	R2-2-T96	1018179.000	1892883.900	715.7	1018178.886	1892883.878	715.935	-0.114	-0.022	0.235	
2	R2-2-T97	1017988.200	1892883.200	716.2	1017988.195	1892883.136	716.430	-0.005	-0.064	0.230	
2	R2-2-T98	1018124.000	1892882.500	GS	1018124.004	1892882.491	711.687	0.004	-0.009	NA	
2	R2-2-T99	1018137.000	1892876.500	GS	1018137.026	1892876.556	713.179	0.026	0.056	NA	
2	R2-2-V6t	1018166.500	1892138.500	714.2	1018166.581	1892138.405	711.986	0.081	-0.095	-2.214	K-M Directed to take all material as targeted
2	R2-2-V7t	1018168.000	1892110.000	713.8	1018168.007	1892109.991	714.232	0.007	-0.009	0.432	K-M Directed to take all material as targeted

Δ Elevation > 0.5 ft Blue

Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Overburden  
Reach 2 Section R2-3

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-3-1853t	1018226.000	1892419.000	714.9	1018226.054	1892418.930	715.540	0.054	-0.070	0.640	K-M Directed to take all material as targeted
2	R2-3-T1	1018224.500	1892426.500	714.9	1018224.386	1892426.431	715.442	-0.114	-0.069	0.542	K-M Directed to take all material as targeted
2	R2-3-T2	1018222.500	1892419.000	714.9	1018222.435	1892418.917	715.018	-0.065	-0.083	0.118	
2	R2-3-T3	1018226.700	1892419.000	714.9	1018226.651	1892418.918	715.563	-0.049	-0.082	0.663	K-M Directed to take all material as targeted
2	R2-3-T4	1018228.500	1892411.000	714.9	1018228.571	1892410.934	715.528	0.071	-0.066	0.628	K-M Directed to take all material as targeted

Δ Elevation &gt; 0.5 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &lt; -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-4

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-4-1909t	1018270.000	1892258.000	GS	1018269.982	1892257.998	716.809	-0.018	-0.002	NA	
2	R2-4-1910t	1018254.000	1892245.000	GS	1018253.991	1892244.953	714.988	-0.009	-0.047	NA	
2	R2-4-1911t	1018270.000	1892245.000	GS	1018270.018	1892245.016	716.750	0.018	0.016	NA	
2	R2-4-1912t	1018258.000	1892229.000	GS	1018258.031	1892228.966	715.247	0.031	-0.034	NA	
2	R2-4-1913t	1018274.000	1892229.000	GS	1018274.006	1892228.954	716.813	0.006	-0.046	NA	
2	R2-4-1915t	1018274.000	1892195.000	GS	1018274.025	1892194.960	716.424	0.025	-0.040	NA	
2	R2-4-1920t	1018283.000	1892207.000	GS	1018282.979	1892206.961	717.080	-0.021	-0.039	NA	
2	R2-4-743t	1018273.000	1892207.000	GS	1018273.000	1892206.934	716.708	0.000	-0.066	NA	
2	R2-4-T1	1018266.600	1892266.800	GS	1018266.654	1892266.751	716.752	0.054	-0.049	NA	
2	R2-4-T10	1018266.000	1892195.000	GS	1018266.013	1892194.923	715.777	0.013	-0.077	NA	
2	R2-4-T11	1018282.000	1892195.000	GS	1018282.020	1892194.960	716.198	0.020	-0.040	NA	
2	R2-4-T12	1018267.000	1892185.500	GS	1018266.980	1892185.504	716.140	-0.020	0.004	NA	
2	R2-4-T13	1018283.500	1892185.000	GS	1018283.475	1892184.971	716.076	-0.025	-0.029	NA	
2	R2-4-T2	1018262.000	1892258.000	GS	1018262.018	1892257.941	716.117	0.018	-0.059	NA	
2	R2-4-T3	1018262.000	1892251.500	GS	1018261.977	1892251.414	716.185	-0.023	-0.086	NA	
2	R2-4-T4	1018241.000	1892251.000	GS	1018241.018	1892250.974	711.895	0.018	-0.026	NA	
2	R2-4-T5	1018241.000	1892242.500	GS	1018240.983	1892242.402	711.872	-0.017	-0.098	NA	
2	R2-4-T6	1018257.000	1892218.000	GS	1018256.973	1892217.986	714.835	-0.027	-0.014	NA	
2	R2-4-T7	1018264.500	1892207.000	GS	1018264.476	1892206.956	716.074	-0.024	-0.044	NA	
2	R2-4-T8	1018286.200	1892206.600	GS	1018286.197	1892206.588	717.138	-0.003	-0.012	NA	
2	R2-4-T9	1018288.000	1892201.000	GS	1018288.002	1892200.993	717.077	0.002	-0.007	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-5-1937t	1018274.000	1892124.000	GS	1018273.961	1892123.999	715.539	-0.039	-0.001	NA	
2	R2-5-1938t	1018290.000	1892124.000	GS	1018289.979	1892123.975	715.949	-0.021	-0.025	NA	
2	R2-5-1942t	1018266.000	1892088.000	GS	1018265.960	1892087.949	713.890	-0.040	-0.051	NA	
2	R2-5-1943t	1018283.000	1892088.000	GS	1018283.061	1892087.972	715.164	0.061	-0.028	NA	
2	R2-5-1947t	1018269.000	1892059.000	GS	1018269.037	1892059.023	713.665	0.037	0.023	NA	
2	R2-5-1963t	1018270.000	1892029.000	GS	1018269.982	1892028.965	713.373	-0.018	-0.035	NA	
2	R2-5-1964t	1018287.000	1892029.000	GS	1018286.944	1892028.957	713.809	-0.056	-0.043	NA	
2	R2-5-1965t	1018303.000	1892029.000	GS	1018302.931	1892029.003	713.688	-0.069	0.003	NA	
2	R2-5-2434t	1018260.000	1892030.000	GS	1018259.944	1892030.025	711.702	-0.056	0.025	NA	
2	R2-5-2435t	1018260.000	1892046.000	711.5	1018260.006	1892045.903	712.260	0.006	-0.097	0.760	K-M Directed to take all material as targeted
2	R2-5-2499t	1018276.000	1892014.000	713.3	1018276.036	1892013.899	713.931	0.036	-0.101	0.631	K-M Directed to take all material as targeted
2	R2-5-2565t	1018298.000	1891990.000	711.0	1018298.080	1891990.091	711.415	0.080	0.091	0.415	
2	R2-5-2572t	1018307.000	1891990.000	711.9	1018307.013	1891989.949	712.161	0.013	-0.051	0.261	
2	R2-5-715t	1018287.000	1892013.000	GS	1018287.010	1892012.985	714.417	0.010	-0.015	NA	
2	R2-5-716t	1018304.000	1892013.000	GS	1018304.009	1892012.935	714.668	0.009	-0.065	NA	
2	R2-5-724t	1018279.000	1892044.000	GS	1018279.002	1892043.960	714.137	0.002	-0.040	NA	
2	R2-5-725t	1018295.000	1892044.000	GS	1018294.968	1892044.013	713.923	-0.032	0.013	NA	
2	R2-5-726t	1018312.000	1892044.000	GS	1018311.992	1892043.988	714.720	-0.008	-0.012	NA	
2	R2-5-729t	1018275.000	1892074.000	GS	1018275.023	1892074.024	714.661	0.023	0.024	NA	
2	R2-5-730t	1018291.000	1892074.000	GS	1018290.989	1892074.047	714.900	-0.011	0.047	NA	
2	R2-5-733t	1018262.000	1892104.000	711.9	1018262.074	1892103.873	713.118	0.074	-0.127	1.218	K-M Directed to take all material as targeted
2	R2-5-734t	1018279.000	1892104.000	GS	1018278.989	1892103.995	714.810	-0.011	-0.005	NA	
2	R2-5-735t	1018296.000	1892104.000	GS	1018295.965	1892104.024	715.461	-0.035	0.024	NA	
2	R2-5-738t	1018275.000	1892143.000	GS	1018274.982	1892142.985	715.923	-0.018	-0.015	NA	
2	R2-5-739t	1018292.000	1892143.000	GS	1018292.006	1892143.007	717.582	0.006	0.007	NA	
2	R2-5-T1	1018268.000	1892150.500	GS	1018267.962	1892150.465	715.549	-0.038	-0.035	NA	
2	R2-5-T10	1018258.500	1892097.500	711.9	1018258.474	1892097.461	712.886	-0.026	-0.039	0.986	K-M Directed to take all material as targeted
2	R2-5-T11	1018260.500	1892089.500	GS	1018260.505	1892089.490	712.628	0.005	-0.010	NA	
2	R2-5-T12	1018291.000	1892088.000	GS	1018290.994	1892087.961	714.816	-0.006	-0.039	NA	
2	R2-5-T13	1018267.500	1892076.000	GS	1018267.474	1892075.967	713.814	-0.026	-0.033	NA	
2	R2-5-T14	1018295.000	1892074.000	GS	1018294.941	1892074.035	714.913	-0.059	0.035	NA	
2	R2-5-T15	1018280.500	1892066.500	GS	1018280.482	1892066.482	714.673	-0.018	-0.018	NA	
2	R2-5-T16	1018296.500	1892066.500	GS	1018296.439	1892066.572	714.545	-0.061	0.072	NA	
2	R2-5-T17	1018264.500	1892060.500	GS	1018264.511	1892060.528	712.514	0.011	0.028	NA	
2	R2-5-T18	1018277.500	1892059.000	GS	1018277.532	1892058.952	714.648	0.032	-0.048	NA	
2	R2-5-T19	1018282.500	1892051.500	GS	1018282.474	1892051.535	714.629	-0.026	0.035	NA	
2	R2-5-T2	1018293.000	1892150.500	GS	1018293.039	1892150.476	716.970	0.039	-0.024	NA	

Δ Elevation > 0.5 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation 0.5 to -0.25 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation < -0.25 ft Red

12/22/05

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

# KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS

Bottom of Overburden

Reach 2 Section R2-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-5-T20	1018298.500	1892051.500	GS	1018298.504	1892051.492	714.202	0.004	-0.008	NA	
2	R2-5-T21	1018314.000	1892048.500	GS	1018314.028	1892048.455	714.845	0.028	-0.045	NA	
2	R2-5-T22	1018252.000	1892046.000	711.5	1018252.013	1892046.084	711.372	0.013	0.084	-0.128	
2	R2-5-T23	1018316.600	1892044.000	GS	1018316.577	1892043.971	714.713	-0.023	-0.029	NA	
2	R2-5-T24	1018312.000	1892036.500	GS	1018311.943	1892036.512	714.516	-0.057	0.012	NA	
2	R2-5-T25	1018252.000	1892030.000	GS	1018252.048	1892029.957	711.296	0.048	-0.043	NA	
2	R2-5-T26	1018310.500	1892028.700	GS	1018310.456	1892028.717	714.152	-0.044	0.017	NA	
2	R2-5-T27	1018251.900	1892022.400	GS	1018251.896	1892022.381	711.223	-0.004	-0.019	NA	
2	R2-5-T28	1018264.900	1892021.900	GS	1018264.915	1892021.862	711.888	0.015	-0.038	NA	
2	R2-5-T29	1018267.900	1892014.400	713.3	1018267.920	1892014.399	713.523	0.020	-0.001	0.223	
2	R2-5-T3	1018266.500	1892143.000	GS	1018266.445	1892142.988	715.455	-0.055	-0.012	NA	
2	R2-5-T30	1018308.000	1892013.000	GS	1018307.975	1892013.025	714.058	-0.025	0.025	NA	
2	R2-5-T31	1018305.100	1892003.500	GS	1018305.081	1892003.485	717.213	-0.019	-0.015	NA	
2	R2-5-T32	1018270.000	1892002.000	713.3	1018270.105	1892002.073	717.094	0.105	0.073	3.794	K-M Directed to take all material as targeted
2	R2-5-T33	1018288.000	1892001.500	GS	1018288.039	1892001.459	718.252	0.039	-0.041	NA	
2	R2-5-T34	1018305.800	1891996.200	711.9	1018305.755	1891996.258	714.386	-0.045	0.058	2.486	Taken as TM for Joy Rd restoration
2	R2-5-T35	1018311.300	1891989.700	711.9	1018311.347	1891989.636	719.833	0.047	-0.064	7.933	All material removed as TM for Joy Rd Restor.
2	R2-5-T36	1018293.600	1891989.600	711.0	1018293.637	1891989.683	711.370	0.037	0.083	0.370	
2	R2-5-T4	1018296.000	1892143.000	GS	1018296.067	1892143.028	717.274	0.067	0.028	NA	
2	R2-5-T5	1018265.500	1892124.000	GS	1018265.493	1892123.969	714.768	-0.007	-0.031	NA	
2	R2-5-T6	1018294.500	1892124.000	GS	1018294.514	1892123.951	717.206	0.014	-0.049	NA	
2	R2-5-T7	1018261.000	1892107.000	711.9	1018260.872	1892106.985	712.724	-0.128	-0.015	0.824	K-M Directed to take all material as targeted
2	R2-5-T8	1018269.500	1892107.000	711.9	1018269.332	1892106.895	714.567	-0.168	-0.105	2.667	K-M Directed to take all material as targeted
2	R2-5-T9	1018300.000	1892104.000	GS	1018300.059	1892104.011	715.470	0.059	0.011	NA	

Δ Elevation > 0.5 ft Blue

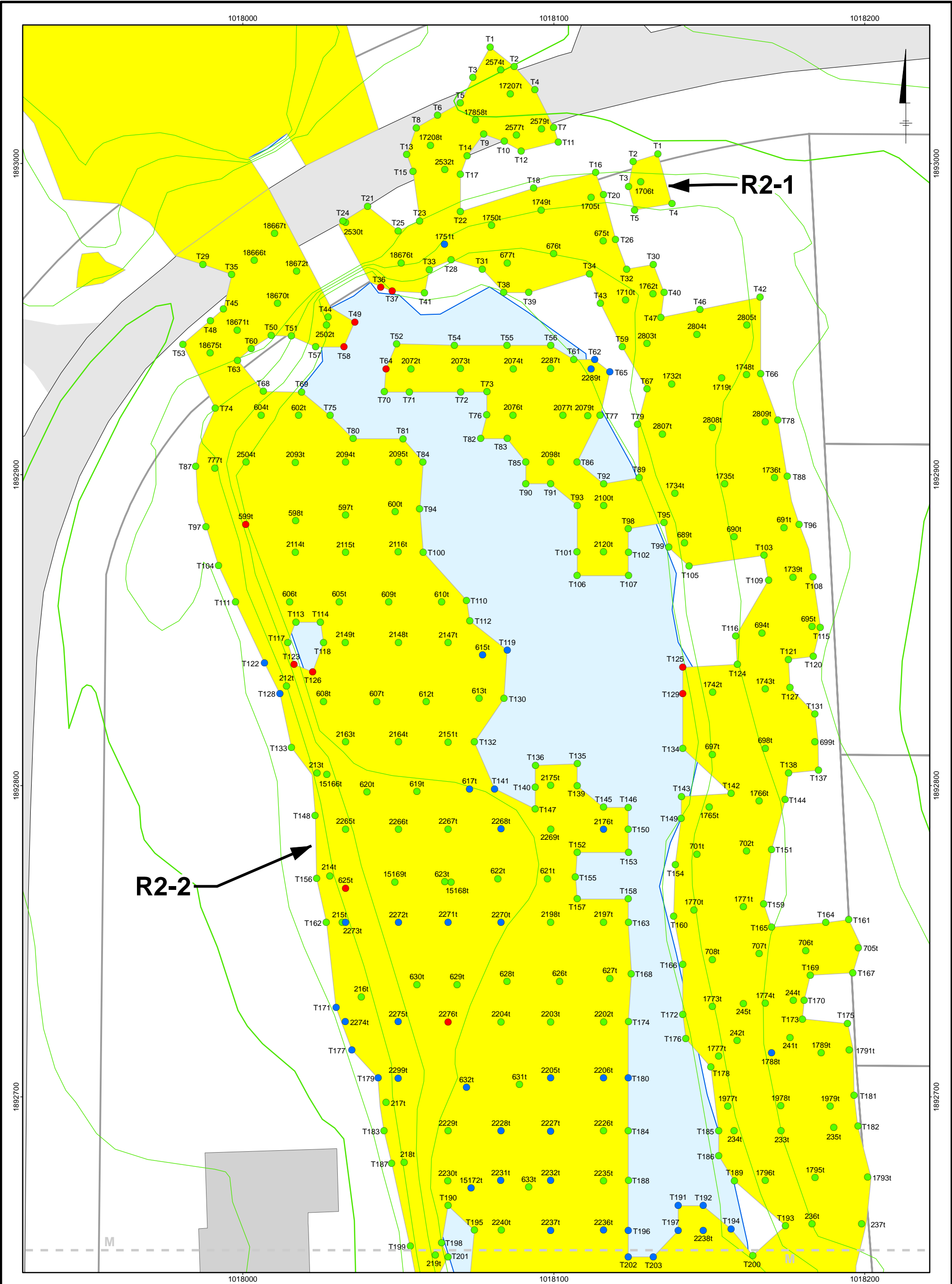
Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation 0.5 to -0.25 ft Green

Δ Easting/Northing > 0.2 ft Blue

Δ Elevation < -0.25 ft Red





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE

0 25 50 Feet

SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.5 Ft
- 0.5 to -0.25 Ft
- < -0.25 Ft

NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE

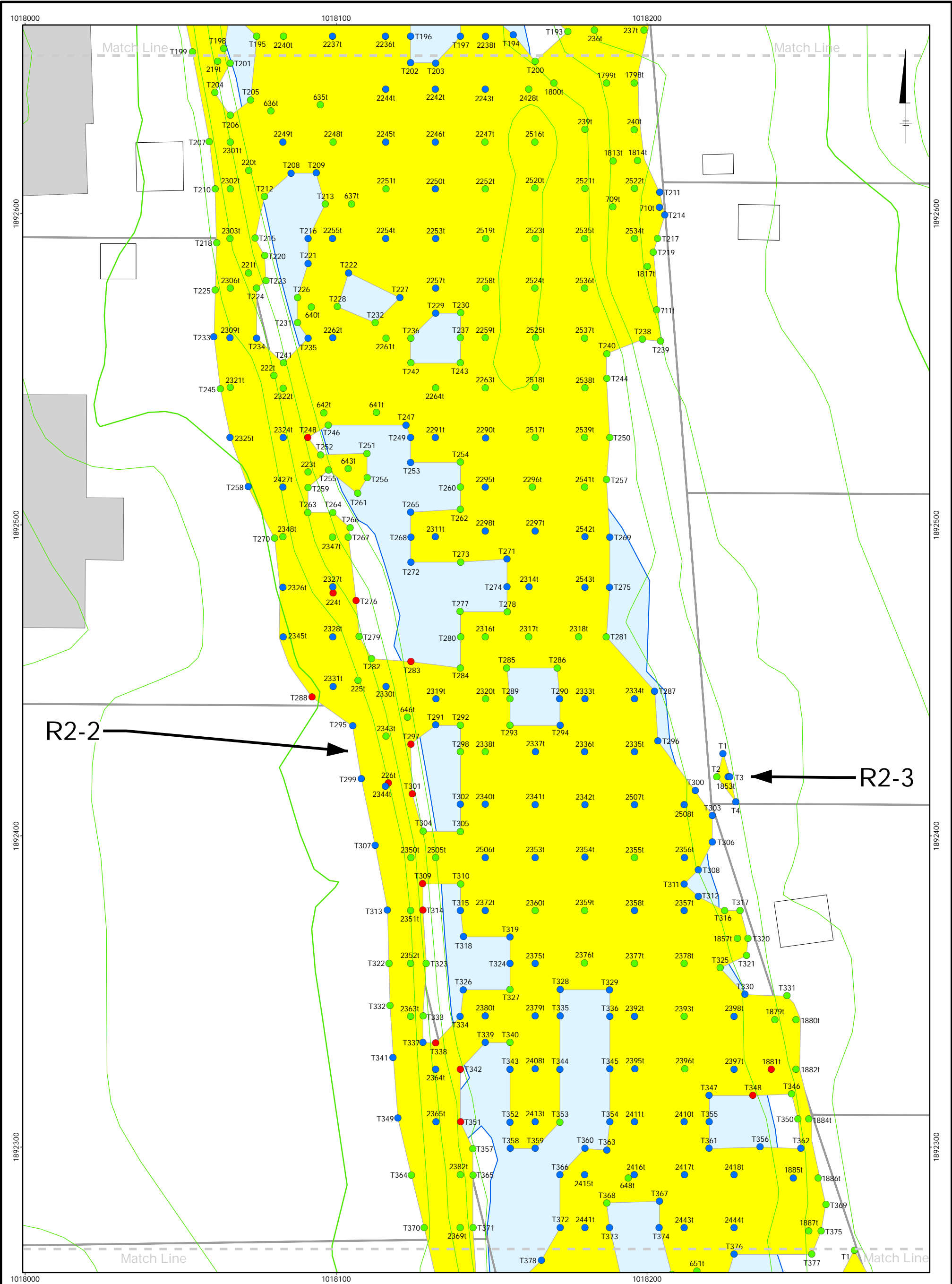
DATUM: NAD 83  
UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
**REMEDIATION TRACKING SYSTEM**  
**GPS VERIFICATION POINTS**  
**BOTTOM OF OVERBURDEN**  
**REACH 2 NORTHERN PORTION**

**BBL**  
ENVIRONMENTAL SERVICES, INC.  
Remedial Management & Construction

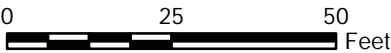
FIGURE  
1





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE



SURVEY LOCATION:

- LOCATION NOT SURVEYED

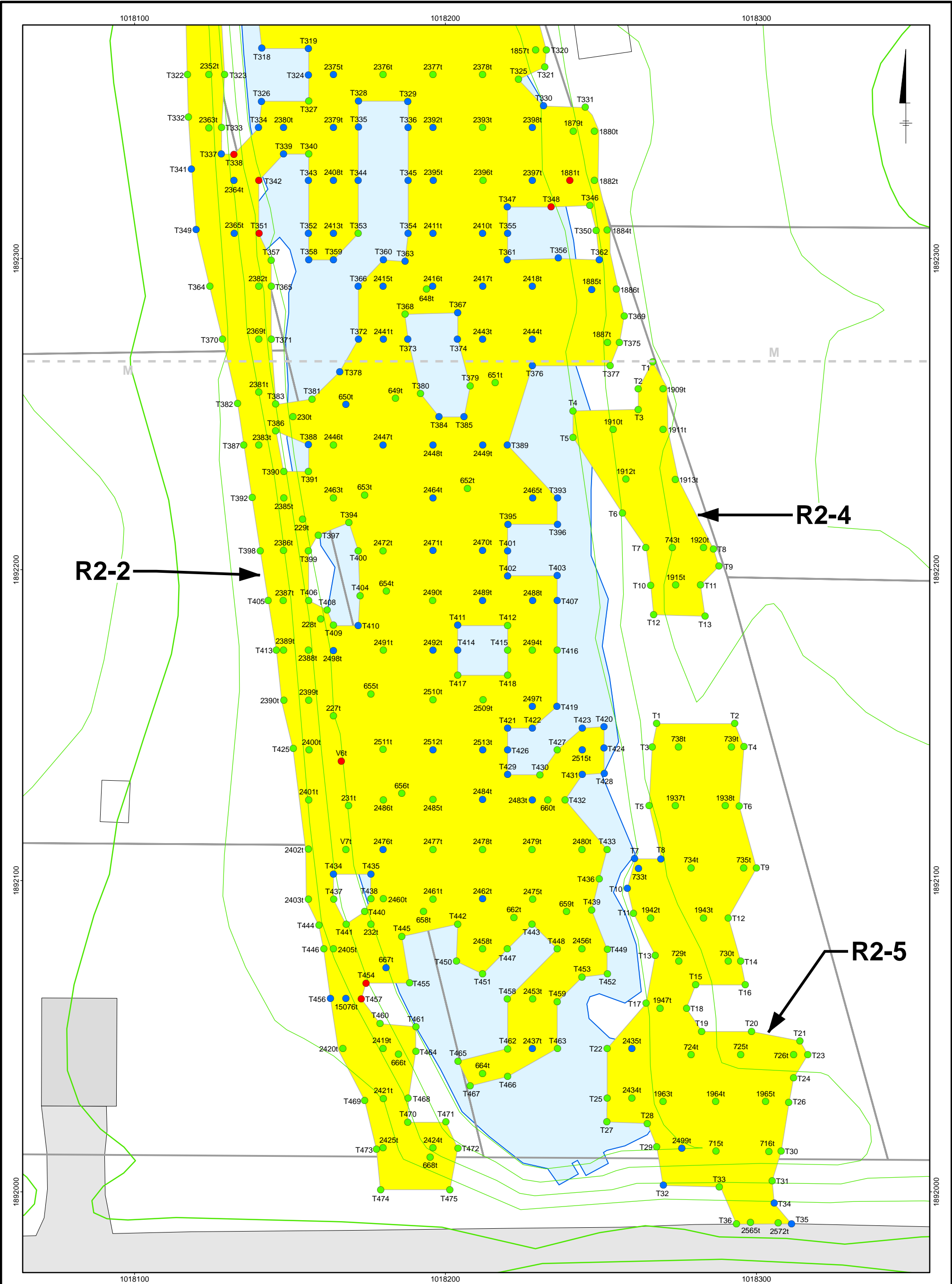
ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.5 Ft
- 0.5 to -0.25 Ft
- < -0.25 Ft

NOTE:  
1. COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE  
DATUM: NAD 83  
UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
REMEDATION TRACKING SYSTEM  
GPS VERIFICATION POINTS  
BOTTOM OF OVERBURDEN  
REACH 2 (CENTRAL PORTION)





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE

0 25 50 Feet

SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE  
(ACTUAL VS DESIGN)

- > 0.5 Ft
- 0.5 to -0.25 Ft
- < -0.25 Ft

NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE  
DATUM: NAD 83  
UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
**REMEDIATION TRACKING SYSTEM**  
**GPS VERIFICATION POINTS**  
**BOTTOM OF OVERBURDEN**  
**REACH 2 SOUTHERN PORTION**

**BBL**  
ENVIRONMENTAL SERVICES, INC.  
Remedial Management & Construction

FIGURE  
3

DATE: 12/19/2005

PREPARED BY: Jerry Krane

## **Appendix F**

Notification of Successful GPS  
Verification Survey for the Bottoms  
of Targeted Material, Reach 2 –  
All Sections (R2-1 through R2-5)

*Transmitted Via E-Mail*

**KC 060**

December 23, 2005

Mr. Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, Illinois 60185

Re: **Notification of Successful GPS Verification Survey  
For the Bottom of Targeted Material**  
Reach 2 – All Sections  
Remedial Action at the Kress Creek Project, West Chicago, IL  
BBLES Project #: 71014.004

Dear Mark:

In accordance with Section 2.1.5.2 "Notification" in the Reach 2 Final Design/Remedial Action (FD/RA) Work Plan for the above referenced project, BBL Environmental Services, Inc. (BBLES) is pleased to notify Kerr-McGee, the USEPA RPM/OSC and the Local Communities' Representative that a successful GPS Verification Survey was performed for the **Bottom of Targeted Material** for the excavations for the entirety of Reach 2 at the Kress Creek Remedial Action Project in West Chicago, Illinois at the time and date noted below:

- 1. This GPS Verification Survey Package issued on 12/23/05 includes in its entirety all of the Reach 2 targeted material points achieved and documented in accordance with the Work Plan. These GPS verification points for bottom of targeted material were previously distributed by a series of e-mails entitled "Kress Creek, Reach 2: GPS points achieved" from October 27, 2005 through December 15, 2005.**

Excavation Locations: Reach 2: Sections R2-1, R2-2, R2-3, R2-4 and R2-5.

Date of Verification: 12/23/05

Time of Verification: 10:00 AM CST

In accordance with Section 2.1.5.1 "Concurrent Verification" of the Reach 2 FD/RA Work Plan, BBLES sent an e-mail each Friday with a weekly schedule for the next week that listed the projected locations and dates where excavations and GPS verification surveys would be performed. BBLES sent those weekly schedule e-mails to Rebecca Frey and Scott Hansen of USEPA, Richard Allen, Kelly Grahn and Steve Shafer of IEMA/DNS and John Wills of CBB West providing them the required 24 hour notice that the

excavations and GPS verification surveys for the bottom of targeted material would be completed during those weeks.

There are five (5) attached Tables (Excel) prepared by ProSource Technologies, Inc. (ProSource) entitled “Kress Creek/ West Branch of DuPage River Verification Points, Bottom of Targeted Material” for the five Reach 2 sections, and the tables list the design, actual and difference of the survey coordinates and elevations of the verification points located in the areas defined above under Excavation Locations.

The attached maps (pdf) prepared by ProSource divide Reach 2 into Figure 1 which shows the northern portion of Reach 2, Figure 2 which shows the central portion of Reach 2, and Figure 3 which shows the southern portion of Reach 2. The maps present the excavation locations identified above, and denote the location of each of the verification points that have been verified.

The verification points listed in these attachments have been achieved and backfilling in the specified excavation locations has proceeded in accordance with the prior preliminary verbal approval of these points based on the field monitoring of the regulators’ representatives. Documents pertaining to this survey are available for inspection at the BBLES/Sevenson construction office at Kerr-McGee’s REF Facility.

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

***Michael F. Savage***

Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Michael Logan, Kerr-McGee  
Frank Schultz, Kerr-McGee  
Steve Wallace, Kerr-McGee  
Jeffery Williams, Kerr- McGee  
Rebecca Frey, USEPA  
Richard Allen, IEMA  
Kelly Grahm, IEMA  
Steve Shafer, REM/IEMA  
Pat Kelsey, CBB West  
Kristine Meyer, CBB West  
Matt Scheffler, CBB West  
John Wills, CBB West  
Mark Gravelding, BBLES  
Joseph Molina, BBLES  
Heather Vandewalker, BBLES  
Jeff Walker, BBLES  
Michael Crystal, Sevenson

Bot. of Target Material, R2 completed 12-23-05.doc  
K-M File # KC 4.1-6-1

Rick Elia, Jr., Severson  
Mark Schmitt, Severson  
Wade Carlson, ProSource  
Jerry Krane, ProSource

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 2 Section R2-1

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-1-1706b	1018128.000	1892994.000	716.4	1018127.963	1892993.947	716.382	-0.037	-0.053	-0.018	
2	R2-1-B1	1018133.500	1893003.000	716.4	1018133.582	1893002.994	716.369	0.082	-0.006	-0.031	
2	R2-1-B2	1018125.500	1893000.500	716.4	1018125.637	1893000.503	716.291	0.137	0.003	-0.109	
2	R2-1-B3	1018124.000	1892992.500	716.4	1018124.076	1892992.489	716.282	0.076	-0.011	-0.118	
2	R2-1-B4	1018138.000	1892987.000	716.4	1018138.028	1892986.945	716.367	0.028	-0.055	-0.033	
2	R2-1-B5	1018126.000	1892985.000	716.4	1018125.949	1892984.971	716.313	-0.051	-0.029	-0.087	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-15076b	1018168.000	1892062.000	713.8	1018168.019	1892061.919	713.215	0.019	-0.081	-0.585	
2	R2-2-15166b	1018027.100	1892803.500	711.7	1018027.096	1892803.535	711.627	-0.004	0.035	-0.073	
2	R2-2-15168b	1018067.000	1892768.800	709.6	1018066.929	1892768.720	709.558	-0.071	-0.080	-0.042	
2	R2-2-15169b	1018048.900	1892768.900	709.4	1018048.827	1892768.900	709.304	-0.073	0.000	-0.096	
2	R2-2-15172b	1018073.400	1892670.700	709.2	1018073.409	1892670.618	709.157	0.009	-0.082	-0.043	
2	R2-2-1705b	1018112.000	1892989.000	712.9	1018111.961	1892989.027	712.661	-0.039	0.027	-0.239	
2	R2-2-1710b	1018123.000	1892956.000	712.6	1018123.018	1892956.042	712.530	0.018	0.042	-0.070	
2	R2-2-1719b	1018154.000	1892931.000	714.2	1018153.953	1892930.984	714.117	-0.047	-0.016	-0.083	
2	R2-2-17207b	1018086.000	1893022.400	714.1	1018085.907	1893022.273	713.865	-0.093	-0.127	-0.235	
2	R2-2-17208b	1018060.400	1893005.900	712.4	1018060.363	1893005.818	712.282	-0.037	-0.082	-0.118	
2	R2-2-1732b	1018138.000	1892929.000	713.2	1018137.961	1892928.943	713.189	-0.039	-0.057	-0.011	
2	R2-2-1734b	1018139.000	1892894.000	713.3	1018138.967	1892894.002	713.101	-0.033	0.002	-0.199	
2	R2-2-1735b	1018155.000	1892897.000	714.1	1018155.118	1892896.918	713.876	0.118	-0.082	-0.224	
2	R2-2-1736b	1018171.000	1892899.000	714.1	1018171.033	1892898.986	713.924	0.033	-0.014	-0.176	
2	R2-2-1739b	1018177.000	1892867.000	713.2	1018176.969	1892867.059	713.120	-0.031	0.059	-0.080	
2	R2-2-1742b	1018151.000	1892830.000	711.8	1018151.096	1892829.991	711.783	0.096	-0.009	-0.017	
2	R2-2-1743b	1018168.000	1892831.000	713.8	1018167.963	1892831.035	713.787	-0.037	0.035	-0.013	
2	R2-2-1748b	1018162.000	1892932.000	714.2	1018162.068	1892931.964	714.035	0.068	-0.036	-0.165	
2	R2-2-1749b	1018096.000	1892985.000	714	1018095.972	1892984.990	713.600	-0.028	-0.010	-0.400	
2	R2-2-1750b	1018080.000	1892980.000	714.7	1018080.046	1892979.998	714.616	0.046	-0.002	-0.084	
2	R2-2-1751b	1018065.000	1892974.000	712.8	1018065.074	1892973.972	712.781	0.074	-0.028	-0.019	
2	R2-2-1762b	1018132.000	1892958.000	712.9	1018132.023	1892957.958	712.765	0.023	-0.042	-0.135	
2	R2-2-1765b	1018150.000	1892793.000	711.7	1018150.004	1892793.035	711.685	0.004	0.035	-0.015	
2	R2-2-1766b	1018166.000	1892795.000	712.7	1018166.010	1892795.009	712.489	0.010	0.009	-0.211	
2	R2-2-1770b	1018145.000	1892760.000	711.6	1018145.063	1892759.996	711.575	0.063	-0.004	-0.025	
2	R2-2-1771b	1018161.000	1892761.000	714	1018160.966	1892760.998	713.949	-0.034	-0.002	-0.051	
2	R2-2-1773b	1018151.000	1892729.000	712	1018151.111	1892729.003	711.923	0.111	0.003	-0.077	
2	R2-2-1774b	1018168.000	1892730.000	714.1	1018168.007	1892730.004	714.043	0.007	0.004	-0.057	
2	R2-2-1777b	1018153.000	1892713.000	711.9	1018152.996	1892713.096	711.803	-0.004	0.096	-0.097	
2	R2-2-1785b	1018074.900	1893013.900	713.4	1018074.929	1893013.809	713.387	0.029	-0.091	-0.013	
2	R2-2-1788b	1018170.000	1892714.000	713.2	1018169.923	1892714.082	713.135	-0.077	0.082	-0.065	
2	R2-2-1789b	1018186.000	1892714.000	714.1	1018185.961	1892713.987	714.045	-0.039	-0.013	-0.055	
2	R2-2-1791b	1018195.000	1892715.000	715.3	1018195.015	1892715.047	715.093	0.015	0.047	-0.207	
2	R2-2-1793b	1018201.000	1892674.000	714.1	1018200.912	1892674.023	714.005	-0.088	0.023	-0.095	
2	R2-2-1795b	1018184.000	1892674.000	712.3	1018183.939	1892673.924	712.225	-0.061	-0.076	-0.075	
2	R2-2-1796b	1018168.000	1892673.000	713.1	1018167.993	1892673.011	713.079	-0.007	0.011	-0.021	
2	R2-2-1798b	1018196.000	1892642.000	716.4	1018196.044	1892642.041	715.719	0.044	0.041	-0.681	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-1799b	1018187.000	1892642.000	714.9	1018187.035	1892641.961	714.617	0.035	-0.039	-0.283	
2	R2-2-1800b	1018170.000	1892642.000	711.3	1018169.967	1892642.042	711.200	-0.033	0.042	-0.100	
2	R2-2-1813b	1018189.000	1892617.000	715	1018188.989	1892617.041	714.644	-0.011	0.041	-0.356	
2	R2-2-1814b	1018197.000	1892617.000	714.3	1018197.045	1892616.991	714.251	0.045	-0.009	-0.049	
2	R2-2-1817b	1018200.000	1892583.000	714.1	1018199.992	1892582.992	714.043	-0.008	-0.008	-0.057	
2	R2-2-1857b	1018229.000	1892367.000	712.7	1018229.045	1892366.950	712.296	0.045	-0.050	-0.404	
2	R2-2-18666b	1018003.600	1892968.700	710.6	1018003.611	1892968.635	710.522	0.011	-0.065	-0.078	
2	R2-2-18667b	1018010.300	1892977.500	711.1	1018010.418	1892977.479	710.991	0.118	-0.021	-0.109	
2	R2-2-18670b	1018011.200	1892955.000	710	1018011.126	1892954.966	709.920	-0.074	-0.034	-0.080	
2	R2-2-18671b	1017998.200	1892946.500	710.9	1017998.195	1892946.435	710.715	-0.005	-0.065	-0.185	
2	R2-2-18672b	1018017.300	1892965.200	709.8	1018017.275	1892965.108	709.761	-0.025	-0.092	-0.039	
2	R2-2-18675b	1017989.600	1892939.100	712.8	1017989.607	1892939.037	712.604	0.007	-0.063	-0.196	
2	R2-2-18676b	1018051.000	1892967.900	712.4	1018051.017	1892967.879	712.298	0.017	-0.021	-0.102	
2	R2-2-1879b	1018241.000	1892341.000	713	1018240.980	1892340.893	712.943	-0.020	-0.107	-0.057	
2	R2-2-1880b	1018248.000	1892341.000	714.6	1018247.976	1892340.992	714.578	-0.024	-0.008	-0.022	
2	R2-2-1881b	1018240.000	1892325.000	712.8	1018239.862	1892324.993	712.734	-0.138	-0.007	-0.066	
2	R2-2-1882b	1018248.000	1892325.000	714.7	1018247.976	1892325.017	714.644	-0.024	0.017	-0.056	
2	R2-2-1884b	1018252.000	1892309.000	714.1	1018251.951	1892309.037	714.091	-0.049	0.037	-0.009	
2	R2-2-1885b	1018247.000	1892290.000	713	1018247.052	1892289.938	712.854	0.052	-0.062	-0.146	
2	R2-2-1886b	1018255.000	1892290.000	714.7	1018255.041	1892289.998	714.336	0.041	-0.002	-0.364	
2	R2-2-1887b	1018252.000	1892273.000	713.8	1018251.984	1892272.982	713.668	-0.016	-0.018	-0.132	
2	R2-2-1977b	1018156.000	1892697.000	710.5	1018155.982	1892696.985	710.489	-0.018	-0.015	-0.011	
2	R2-2-1978b	1018173.000	1892697.000	712.8	1018172.960	1892696.971	712.458	-0.040	-0.029	-0.342	
2	R2-2-1979b	1018189.000	1892697.000	714.1	1018189.005	1892696.885	713.998	0.005	-0.115	-0.102	
2	R2-2-2072b	1018054.000	1892934.000	704.9	1018054.046	1892934.092	704.788	0.046	0.092	-0.112	
2	R2-2-2073b	1018070.000	1892934.000	710.6	1018069.918	1892934.049	710.537	-0.082	0.049	-0.063	
2	R2-2-2074b	1018087.000	1892934.000	711	1018087.022	1892934.010	710.870	0.022	0.010	-0.130	
2	R2-2-2076b	1018087.000	1892919.000	710.6	1018086.982	1892918.970	710.522	-0.018	-0.030	-0.078	
2	R2-2-2077b	1018103.000	1892919.000	710.2	1018103.015	1892918.959	710.131	0.015	-0.041	-0.069	
2	R2-2-2079b	1018111.000	1892919.000	710.9	1018110.976	1892919.109	710.670	-0.024	0.109	-0.230	
2	R2-2-2093b	1018017.000	1892904.000	710.2	1018017.001	1892904.049	710.160	0.001	0.049	-0.040	
2	R2-2-2094b	1018033.000	1892904.000	709.3	1018032.990	1892903.999	709.101	-0.010	-0.001	-0.199	
2	R2-2-2095b	1018050.000	1892904.000	709.9	1018050.016	1892903.904	709.817	0.016	-0.096	-0.083	
2	R2-2-2098b	1018099.000	1892904.000	710.6	1018098.972	1892904.091	710.584	-0.028	0.091	-0.016	
2	R2-2-2100b	1018116.000	1892890.000	711.3	1018116.020	1892890.029	711.128	0.020	0.029	-0.172	
2	R2-2-2114b	1018017.000	1892875.000	709.3	1018017.048	1892874.941	709.127	0.048	-0.059	-0.173	
2	R2-2-2115b	1018033.000	1892875.000	709.2	1018033.032	1892874.956	708.993	0.032	-0.044	-0.207	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2116b	1018050.000	1892875.000	707.5	1018050.055	1892874.969	707.496	0.055	-0.031	-0.004	
2	R2-2-2120b	1018116.000	1892875.000	710	1018115.979	1892874.949	709.877	-0.021	-0.051	-0.123	
2	R2-2-212b	1018014.000	1892832.000	713	1018014.084	1892832.098	712.828	0.084	0.098	-0.172	
2	R2-2-213b	1018024.000	1892804.000	710.8	1018023.952	1892803.983	710.747	-0.048	-0.017	-0.053	
2	R2-2-2147b	1018066.000	1892846.000	709.3	1018066.026	1892846.096	709.275	0.026	0.096	-0.025	
2	R2-2-2148b	1018050.000	1892846.000	706.5	1018049.930	1892846.076	706.286	-0.070	0.076	-0.214	
2	R2-2-2149b	1018033.000	1892846.000	708.9	1018032.938	1892846.039	708.868	-0.062	0.039	-0.032	
2	R2-2-214b	1018028.000	1892771.000	713.5	1018027.892	1892770.929	713.090	-0.108	-0.071	-0.410	Point was surveyed at existing ground surface
2	R2-2-2151b	1018066.000	1892814.000	707.6	1018066.054	1892814.011	707.594	0.054	0.011	-0.006	
2	R2-2-215b	1018032.000	1892756.000	713.8	1018032.021	1892756.091	713.759	0.021	0.091	-0.041	
2	R2-2-2163b	1018033.000	1892814.000	709.4	1018032.948	1892813.987	709.306	-0.052	-0.013	-0.094	
2	R2-2-2164b	1018050.000	1892814.000	709.1	1018049.899	1892814.006	709.043	-0.101	0.006	-0.057	
2	R2-2-216b	1018038.000	1892732.000	715.4	1018038.011	1892732.002	715.234	0.011	0.002	-0.166	
2	R2-2-2175b	1018099.000	1892800.000	709	1018098.984	1892799.995	708.998	-0.016	-0.005	-0.002	
2	R2-2-2176b	1018116.000	1892786.000	710.7	1018115.932	1892785.928	710.517	-0.068	-0.072	-0.183	
2	R2-2-217b	1018046.000	1892698.000	714.2	1018045.940	1892698.015	713.953	-0.060	0.015	-0.247	
2	R2-2-218b	1018052.000	1892679.000	712.6	1018051.899	1892678.907	712.352	-0.101	-0.093	-0.248	
2	R2-2-2197b	1018116.000	1892756.000	710.3	1018116.021	1892756.064	710.280	0.021	0.064	-0.020	
2	R2-2-2198b	1018099.000	1892756.000	709.5	1018098.996	1892756.069	709.473	-0.004	0.069	-0.027	
2	R2-2-219b	1018062.000	1892649.000	710.7	1018062.076	1892648.987	710.237	0.076	-0.013	-0.463	
2	R2-2-2202b	1018116.000	1892724.000	710.6	1018116.013	1892723.983	710.544	0.013	-0.017	-0.056	
2	R2-2-2203b	1018099.000	1892724.000	709.5	1018099.073	1892724.000	709.435	0.073	0.000	-0.065	
2	R2-2-2204b	1018083.000	1892724.000	710.3	1018082.942	1892724.059	710.287	-0.058	0.059	-0.013	
2	R2-2-2205b	1018099.000	1892706.000	709.8	1018098.947	1892706.028	709.787	-0.053	0.028	-0.013	
2	R2-2-2206b	1018116.000	1892706.000	710	1018115.935	1892705.991	709.990	-0.065	-0.009	-0.010	
2	R2-2-220b	1018072.000	1892614.000	711.5	1018071.929	1892614.025	711.412	-0.071	0.025	-0.088	
2	R2-2-221b	1018072.000	1892581.000	713.6	1018072.001	1892580.939	713.450	0.001	-0.061	-0.150	
2	R2-2-2226b	1018116.000	1892689.000	709.6	1018116.100	1892689.003	709.164	0.100	0.003	-0.436	
2	R2-2-2227b	1018099.000	1892689.000	708.8	1018099.012	1892688.980	708.686	0.012	-0.020	-0.114	
2	R2-2-2228b	1018083.000	1892689.000	709.6	1018083.009	1892688.935	709.579	0.009	-0.065	-0.021	
2	R2-2-2229b	1018066.000	1892689.000	709.9	1018065.988	1892689.078	709.882	-0.012	0.078	-0.018	
2	R2-2-222b	1018080.000	1892548.000	713.8	1018079.936	1892547.992	713.539	-0.064	-0.008	-0.261	
2	R2-2-2230b	1018066.000	1892673.000	710.9	1018066.163	1892673.090	710.858	0.163	0.090	-0.042	
2	R2-2-2231b	1018083.000	1892673.000	709.7	1018083.013	1892673.074	709.576	0.013	0.074	-0.124	
2	R2-2-2232b	1018099.000	1892673.000	709.9	1018098.937	1892673.041	709.714	-0.063	0.041	-0.186	
2	R2-2-2235b	1018116.000	1892673.000	710.6	1018116.010	1892673.069	710.545	0.010	0.069	-0.055	
2	R2-2-2236b	1018116.000	1892657.000	708.8	1018115.947	1892656.950	708.741	-0.053	-0.050	-0.059	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2237b	1018099.000	1892657.000	709.9	1018098.926	1892657.022	709.853	-0.074	0.022	-0.047	
2	R2-2-2238b	1018148.000	1892657.000	708.9	1018147.937	1892657.040	708.891	-0.063	0.040	-0.009	
2	R2-2-223b	1018091.000	1892517.000	713.7	1018091.000	1892517.046	713.679	0.000	0.046	-0.021	
2	R2-2-2240b	1018083.000	1892657.000	710.9	1018083.011	1892657.009	710.821	0.011	0.009	-0.079	
2	R2-2-2242b	1018132.000	1892640.000	708.6	1018132.041	1892640.040	708.407	0.041	0.040	-0.193	
2	R2-2-2243b	1018148.000	1892640.000	708.9	1018148.080	1892639.969	708.850	0.080	-0.031	-0.050	
2	R2-2-2244b	1018116.000	1892640.000	709.9	1018116.096	1892639.992	709.889	0.096	-0.008	-0.011	
2	R2-2-2245b	1018116.000	1892623.000	710.5	1018116.061	1892623.026	710.402	0.061	0.026	-0.098	
2	R2-2-2246b	1018132.000	1892623.000	708.8	1018132.042	1892622.926	708.714	0.042	-0.074	-0.086	
2	R2-2-2247b	1018148.000	1892623.000	708.5	1018148.062	1892623.040	708.324	0.062	0.040	-0.176	
2	R2-2-2248b	1018099.000	1892623.000	710.8	1018098.931	1892623.000	710.761	-0.069	0.000	-0.039	
2	R2-2-2249b	1018083.000	1892623.000	710.2	1018082.967	1892623.069	710.168	-0.033	0.069	-0.032	
2	R2-2-224b	1018099.000	1892478.000	716.7	1018099.029	1892478.008	716.600	0.029	0.008	-0.100	
2	R2-2-2250b	1018132.000	1892608.000	709	1018131.983	1892607.954	708.849	-0.017	-0.046	-0.151	
2	R2-2-2251b	1018116.000	1892608.000	709.6	1018115.933	1892608.031	709.282	-0.067	0.031	-0.318	
2	R2-2-2252b	1018148.000	1892608.000	708.7	1018148.025	1892607.921	708.673	0.025	-0.079	-0.027	
2	R2-2-2253b	1018132.000	1892592.000	709.6	1018131.992	1892592.001	709.541	-0.008	0.001	-0.059	
2	R2-2-2254b	1018116.000	1892592.000	709	1018115.950	1892591.989	708.938	-0.050	-0.011	-0.062	
2	R2-2-2255b	1018099.000	1892592.000	710.6	1018099.007	1892591.957	710.595	0.007	-0.043	-0.005	
2	R2-2-2257b	1018132.000	1892576.000	710.2	1018132.056	1892575.989	710.155	0.056	-0.011	-0.045	
2	R2-2-2258b	1018148.000	1892576.000	709.3	1018148.051	1892575.970	709.194	0.051	-0.030	-0.106	
2	R2-2-2259b	1018148.000	1892560.000	709.5	1018147.896	1892559.964	709.435	-0.104	-0.036	-0.065	
2	R2-2-225b	1018107.000	1892450.000	717	1018106.947	1892449.964	716.918	-0.053	-0.036	-0.082	
2	R2-2-2261b	1018116.000	1892560.000	710.3	1018116.074	1892560.057	710.093	0.074	0.057	-0.207	
2	R2-2-2262b	1018099.000	1892560.000	710	1018098.984	1892559.939	709.913	-0.016	-0.061	-0.087	
2	R2-2-2263b	1018148.000	1892544.000	710	1018148.001	1892544.037	709.821	0.001	0.037	-0.179	
2	R2-2-2264b	1018132.000	1892544.000	710	1018131.932	1892544.066	709.833	-0.068	0.066	-0.167	
2	R2-2-2265b	1018033.000	1892786.000	710.7	1018033.153	1892785.963	710.539	0.153	-0.037	-0.161	
2	R2-2-2266b	1018050.000	1892786.000	709.4	1018050.027	1892786.050	709.395	0.027	0.050	-0.005	
2	R2-2-2267b	1018066.000	1892786.000	709.4	1018066.002	1892786.059	709.352	0.002	0.059	-0.048	
2	R2-2-2268b	1018083.000	1892786.000	709.5	1018083.025	1892786.008	709.417	0.025	0.008	-0.083	
2	R2-2-2269b	1018099.000	1892786.000	710.6	1018098.887	1892786.034	710.417	-0.113	0.034	-0.183	
2	R2-2-226b	1018117.000	1892417.000	717.7	1018117.032	1892416.950	717.634	0.032	-0.050	-0.066	
2	R2-2-2270b	1018083.000	1892756.000	709	1018082.951	1892756.060	708.834	-0.049	0.060	-0.166	
2	R2-2-2271b	1018066.000	1892756.000	709.1	1018066.004	1892756.064	709.093	0.004	0.064	-0.007	
2	R2-2-2272b	1018050.000	1892756.000	710.3	1018049.938	1892756.047	710.197	-0.062	0.047	-0.103	
2	R2-2-2273b	1018033.000	1892756.000	713.8	1018033.067	1892755.997	713.749	0.067	-0.003	-0.051	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
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KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2274b	1018033.000	1892724.000	715.3	1018033.004	1892724.064	715.200	0.004	0.064	-0.100	
2	R2-2-2275b	1018050.000	1892724.000	710.4	1018050.011	1892724.083	710.287	0.011	0.083	-0.113	
2	R2-2-2276b	1018066.000	1892724.000	710.4	1018065.939	1892724.085	710.366	-0.061	0.085	-0.034	
2	R2-2-227b	1018164.000	1892153.000	710	1018164.076	1892152.944	709.973	0.076	-0.056	-0.027	
2	R2-2-2287b	1018099.000	1892934.000	710.5	1018098.986	1892934.030	710.317	-0.014	0.030	-0.183	
2	R2-2-2289b	1018112.000	1892934.000	711.2	1018111.980	1892934.001	710.980	-0.020	0.001	-0.220	
2	R2-2-228b	1018160.000	1892184.000	712.5	1018160.064	1892184.075	712.338	0.064	0.075	-0.162	
2	R2-2-2290b	1018148.000	1892528.000	709.3	1018148.040	1892527.967	709.209	0.040	-0.033	-0.091	
2	R2-2-2291b	1018132.000	1892528.000	709.2	1018132.022	1892528.067	709.121	0.022	0.067	-0.079	
2	R2-2-2295b	1018148.000	1892512.000	709.5	1018147.959	1892511.973	709.481	-0.041	-0.027	-0.019	
2	R2-2-2296b	1018163.000	1892512.000	708.5	1018163.033	1892512.038	708.406	0.033	0.038	-0.094	
2	R2-2-2297b	1018164.000	1892498.000	707.8	1018164.087	1892498.017	707.752	0.087	0.017	-0.048	
2	R2-2-2298b	1018148.000	1892498.000	710.2	1018148.105	1892498.058	710.013	0.105	0.058	-0.187	
2	R2-2-2299b	1018050.000	1892706.000	711.7	1018050.009	1892705.902	711.554	0.009	-0.098	-0.146	
2	R2-2-229b	1018154.000	1892216.000	711.6	1018154.010	1892215.992	711.510	0.010	-0.008	-0.090	
2	R2-2-2301b	1018066.000	1892623.000	714.4	1018065.918	1892622.996	714.049	-0.082	-0.004	-0.351	
2	R2-2-2302b	1018066.000	1892608.000	715.1	1018066.099	1892607.962	715.025	0.099	-0.038	-0.075	
2	R2-2-2303b	1018066.000	1892592.000	714.7	1018066.002	1892591.988	714.557	0.002	-0.012	-0.143	
2	R2-2-2306b	1018066.000	1892576.000	714.1	1018066.034	1892575.992	714.017	0.034	-0.008	-0.083	
2	R2-2-2309b	1018066.000	1892560.000	714.1	1018066.072	1892560.027	713.794	0.072	0.027	-0.306	
2	R2-2-230b	1018151.000	1892249.000	710.7	1018150.971	1892248.927	710.461	-0.029	-0.073	-0.239	
2	R2-2-2311b	1018132.000	1892496.000	709.9	1018131.977	1892496.111	709.768	-0.023	0.111	-0.132	
2	R2-2-2314b	1018162.000	1892480.000	709.1	1018161.994	1892479.917	708.918	-0.006	-0.083	-0.182	
2	R2-2-2316b	1018148.000	1892464.000	710.2	1018147.889	1892463.952	710.074	-0.111	-0.048	-0.126	
2	R2-2-2317b	1018162.000	1892464.000	709.5	1018161.947	1892463.834	709.382	-0.053	-0.166	-0.118	
2	R2-2-2318b	1018178.000	1892464.000	709.4	1018178.032	1892464.076	709.384	0.032	0.076	-0.016	
2	R2-2-2319b	1018132.000	1892444.000	710.2	1018132.024	1892444.000	710.160	0.024	0.000	-0.040	
2	R2-2-231b	1018169.000	1892124.000	711.6	1018168.931	1892124.007	711.591	-0.069	0.007	-0.009	
2	R2-2-2320b	1018148.000	1892444.000	710.4	1018148.012	1892443.895	710.200	0.012	-0.105	-0.200	
2	R2-2-2321b	1018066.000	1892544.000	714.8	1018066.031	1892543.974	714.615	0.031	-0.026	-0.185	
2	R2-2-2322b	1018083.000	1892544.000	713.3	1018082.961	1892543.982	713.126	-0.039	-0.018	-0.174	
2	R2-2-2324b	1018083.000	1892528.000	713.8	1018083.073	1892528.011	713.780	0.073	0.011	-0.020	
2	R2-2-2325b	1018066.000	1892528.000	715.2	1018065.949	1892527.961	715.158	-0.051	-0.039	-0.042	
2	R2-2-2326b	1018083.000	1892480.000	716.9	1018082.964	1892480.032	716.617	-0.036	0.032	-0.283	
2	R2-2-2327b	1018099.000	1892480.000	714.8	1018099.011	1892479.993	714.768	0.011	-0.007	-0.032	
2	R2-2-2328b	1018099.000	1892464.000	715.1	1018099.050	1892464.028	715.006	0.050	0.028	-0.094	
2	R2-2-232b	1018176.000	1892086.000	711.3	1018176.023	1892086.067	711.073	0.023	0.067	-0.227	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2330b	1018116.000	1892448.000	714.8	1018115.951	1892447.966	714.721	-0.049	-0.034	-0.079	
2	R2-2-2331b	1018099.000	1892448.000	716.3	1018098.997	1892448.010	716.138	-0.003	0.010	-0.162	
2	R2-2-2333b	1018180.000	1892444.000	709.3	1018180.060	1892443.900	709.181	0.060	-0.100	-0.119	
2	R2-2-2334b	1018196.000	1892444.000	710.3	1018195.986	1892444.084	710.133	-0.014	0.084	-0.167	
2	R2-2-2335b	1018196.000	1892427.000	709.6	1018196.057	1892427.005	709.578	0.057	0.005	-0.022	
2	R2-2-2336b	1018180.000	1892427.000	709.7	1018180.136	1892427.030	709.527	0.136	0.030	-0.173	
2	R2-2-2337b	1018164.000	1892427.000	709.9	1018164.018	1892426.918	709.880	0.018	-0.082	-0.020	
2	R2-2-2338b	1018148.000	1892427.000	710.5	1018148.016	1892426.972	710.397	0.016	-0.028	-0.103	
2	R2-2-233b	1018173.000	1892689.000	712.6	1018172.969	1892688.956	712.388	-0.031	-0.044	-0.212	
2	R2-2-2340b	1018148.000	1892410.000	709.6	1018148.005	1892409.950	709.531	0.005	-0.050	-0.069	
2	R2-2-2341b	1018164.000	1892410.000	709.4	1018163.965	1892410.067	709.237	-0.035	0.067	-0.163	
2	R2-2-2342b	1018180.000	1892410.000	709.6	1018179.986	1892410.073	709.466	-0.014	0.073	-0.134	
2	R2-2-2343b	1018116.000	1892432.000	715	1018116.021	1892431.971	714.923	0.021	-0.029	-0.077	
2	R2-2-2344b	1018116.000	1892416.000	714.3	1018116.023	1892416.080	714.170	0.023	0.080	-0.130	
2	R2-2-2345b	1018083.000	1892464.000	717.1	1018083.107	1892464.105	717.079	0.107	0.105	-0.021	
2	R2-2-2347b	1018099.000	1892496.000	714.2	1018099.024	1892496.010	714.198	0.024	0.010	-0.002	
2	R2-2-2348b	1018083.000	1892496.000	716.8	1018083.096	1892495.972	716.510	0.096	-0.028	-0.290	
2	R2-2-234b	1018158.000	1892689.000	712.5	1018157.913	1892688.996	712.448	-0.087	-0.004	-0.052	
2	R2-2-2350b	1018124.000	1892393.000	715.1	1018123.977	1892392.986	714.908	-0.023	-0.014	-0.192	
2	R2-2-2351b	1018124.000	1892376.000	714.6	1018124.007	1892376.102	714.588	0.007	0.102	-0.012	
2	R2-2-2352b	1018124.000	1892359.000	714.4	1018124.017	1892358.994	714.392	0.017	-0.006	-0.008	
2	R2-2-2353b	1018164.000	1892393.000	709.4	1018164.018	1892393.021	709.383	0.018	0.021	-0.017	
2	R2-2-2354b	1018180.000	1892393.000	710.1	1018179.963	1892392.977	710.060	-0.037	-0.023	-0.040	
2	R2-2-2355b	1018196.000	1892393.000	708.4	1018195.942	1892392.959	708.236	-0.058	-0.041	-0.164	
2	R2-2-2356b	1018212.000	1892393.000	709.2	1018211.972	1892392.973	708.931	-0.028	-0.027	-0.269	
2	R2-2-2357b	1018212.000	1892376.000	709.7	1018211.943	1892375.953	709.564	-0.057	-0.047	-0.136	
2	R2-2-2358b	1018196.000	1892376.000	709.3	1018196.020	1892376.020	709.108	0.020	0.020	-0.192	
2	R2-2-2359b	1018180.000	1892376.000	709.9	1018180.000	1892376.010	709.823	0.000	0.010	-0.077	
2	R2-2-235b	1018190.000	1892690.000	714.9	1018190.015	1892689.981	714.847	0.015	-0.019	-0.053	
2	R2-2-2360b	1018164.000	1892376.000	709.3	1018164.074	1892376.043	709.277	0.074	0.043	-0.023	
2	R2-2-2363b	1018124.000	1892342.000	714.8	1018124.044	1892342.037	714.770	0.044	0.037	-0.030	
2	R2-2-2364b	1018132.000	1892325.000	714.7	1018132.065	1892324.981	714.535	0.065	-0.019	-0.165	
2	R2-2-2365b	1018132.000	1892308.000	714.9	1018132.013	1892308.039	714.869	0.013	0.039	-0.031	
2	R2-2-2369b	1018140.000	1892274.000	714	1018139.993	1892273.973	713.764	-0.007	-0.027	-0.236	
2	R2-2-236b	1018183.000	1892659.000	713.9	1018183.009	1892659.063	713.884	0.009	0.063	-0.016	
2	R2-2-2372b	1018148.000	1892376.000	710.2	1018148.027	1892376.060	710.148	0.027	0.060	-0.052	
2	R2-2-2375b	1018164.000	1892359.000	709.4	1018164.043	1892358.955	709.395	0.043	-0.045	-0.005	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2376b	1018180.000	1892359.000	708.3	1018179.976	1892358.968	708.145	-0.024	-0.032	-0.155	
2	R2-2-2377b	1018196.000	1892359.000	710.3	1018195.940	1892359.056	710.241	-0.060	0.056	-0.059	
2	R2-2-2378b	1018212.000	1892359.000	710.2	1018212.041	1892359.059	710.131	0.041	0.059	-0.069	
2	R2-2-2379b	1018164.000	1892342.000	709.6	1018163.890	1892342.011	709.580	-0.110	0.011	-0.020	
2	R2-2-237b	1018199.000	1892659.000	714.6	1018198.989	1892658.998	714.488	-0.011	-0.002	-0.112	
2	R2-2-2380b	1018148.000	1892342.000	710	1018148.002	1892342.001	709.820	0.002	0.001	-0.180	
2	R2-2-2381b	1018140.000	1892257.000	713.6	1018140.059	1892257.053	713.576	0.059	0.053	-0.024	
2	R2-2-2382b	1018140.000	1892291.000	711.8	1018139.992	1892290.994	711.701	-0.008	-0.006	-0.099	
2	R2-2-2383b	1018140.000	1892240.000	713.9	1018140.011	1892240.011	713.710	0.011	0.011	-0.190	
2	R2-2-2385b	1018148.000	1892223.000	712.2	1018148.033	1892223.068	712.172	0.033	0.068	-0.028	
2	R2-2-2386b	1018148.000	1892206.000	712.8	1018148.038	1892205.926	712.671	0.038	-0.074	-0.129	
2	R2-2-2387b	1018148.000	1892190.000	713.1	1018147.958	1892190.022	713.008	-0.042	0.022	-0.092	
2	R2-2-2388b	1018156.000	1892174.000	712	1018155.938	1892173.991	711.965	-0.062	-0.009	-0.035	
2	R2-2-2389b	1018148.000	1892174.000	713.5	1018148.015	1892174.091	713.371	0.015	0.091	-0.129	
2	R2-2-2390b	1018148.000	1892158.000	714.8	1018147.999	1892157.986	714.794	-0.001	-0.014	-0.006	
2	R2-2-2392b	1018196.000	1892342.000	709.1	1018196.053	1892341.943	709.077	0.053	-0.057	-0.023	
2	R2-2-2393b	1018212.000	1892342.000	709	1018212.013	1892342.062	708.962	0.013	0.062	-0.038	
2	R2-2-2395b	1018196.000	1892325.000	708.6	1018195.971	1892325.028	708.505	-0.029	0.028	-0.095	
2	R2-2-2396b	1018212.000	1892325.000	709.9	1018211.957	1892325.100	709.893	-0.043	0.100	-0.007	
2	R2-2-2397b	1018228.000	1892325.000	709.8	1018228.008	1892324.929	709.576	0.008	-0.071	-0.224	
2	R2-2-2398b	1018228.000	1892342.000	710.8	1018228.011	1892342.071	710.675	0.011	0.071	-0.125	
2	R2-2-2399b	1018156.000	1892158.000	712.8	1018156.048	1892157.998	712.734	0.048	-0.002	-0.066	
2	R2-2-239b	1018180.000	1892627.000	713.2	1018179.999	1892626.999	713.168	-0.001	-0.001	-0.032	
2	R2-2-2400b	1018156.000	1892142.000	714.4	1018155.971	1892141.987	714.371	-0.029	-0.013	-0.029	
2	R2-2-2401b	1018156.000	1892126.000	714.2	1018156.096	1892125.961	713.973	0.096	-0.039	-0.227	
2	R2-2-2402b	1018156.000	1892110.000	714.1	1018155.979	1892110.042	714.074	-0.021	0.042	-0.026	
2	R2-2-2403b	1018156.000	1892094.000	713.4	1018155.930	1892094.061	713.391	-0.070	0.061	-0.009	
2	R2-2-2405b	1018164.000	1892078.000	713.8	1018163.916	1892078.066	713.660	-0.084	0.066	-0.140	
2	R2-2-2408b	1018164.000	1892325.000	709.7	1018164.034	1892324.957	709.521	0.034	-0.043	-0.179	
2	R2-2-240b	1018196.000	1892627.000	715.4	1018195.979	1892626.954	715.053	-0.021	-0.046	-0.347	
2	R2-2-2410b	1018212.000	1892308.000	709.7	1018211.940	1892308.056	709.392	-0.060	0.056	-0.308	
2	R2-2-2411b	1018196.000	1892308.000	709.5	1018195.979	1892308.007	709.416	-0.021	0.007	-0.084	
2	R2-2-2413b	1018164.000	1892308.000	709.8	1018163.934	1892307.962	709.795	-0.066	-0.038	-0.005	
2	R2-2-2415b	1018180.000	1892291.000	709	1018179.946	1892291.028	708.960	-0.054	0.028	-0.040	
2	R2-2-2416b	1018196.000	1892291.000	708.8	1018196.081	1892291.033	708.567	0.081	0.033	-0.233	
2	R2-2-2417b	1018212.000	1892291.000	709.6	1018211.979	1892291.055	709.478	-0.021	0.055	-0.122	
2	R2-2-2418b	1018228.000	1892291.000	708.9	1018228.029	1892290.996	708.785	0.029	-0.004	-0.115	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
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KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2419b	1018180.000	1892046.000	714.8	1018179.996	1892045.933	714.782	-0.004	-0.067	-0.018	
2	R2-2-241b	1018176.000	1892719.000	714	1018176.015	1892719.000	713.914	0.015	0.000	-0.086	
2	R2-2-2420b	1018167.000	1892046.000	716	1018166.956	1892046.142	715.977	-0.044	0.142	-0.023	Excavated to plastic barrier, 4.6 ft to the West
2	R2-2-2421b	1018180.000	1892030.000	715.1	1018179.916	1892029.991	714.696	-0.084	-0.009	-0.404	
2	R2-2-2424b	1018196.000	1892014.000	714.8	1018195.965	1892014.034	714.559	-0.035	0.034	-0.241	
2	R2-2-2425b	1018180.000	1892014.000	717.2	1018179.937	1892013.990	716.734	-0.063	-0.010	-0.466	
2	R2-2-2427b	1018083.000	1892512.000	715.5	1018082.943	1892512.012	715.483	-0.057	0.012	-0.017	
2	R2-2-2428b	1018162.000	1892640.000	710.6	1018161.976	1892640.049	710.360	-0.024	0.049	-0.240	
2	R2-2-242b	1018159.000	1892718.000	712.6	1018158.924	1892718.146	712.592	-0.076	0.146	-0.008	
2	R2-2-2437b	1018228.000	1892046.000	709.9	1018228.022	1892046.078	709.750	0.022	0.078	-0.150	
2	R2-2-2441b	1018180.000	1892274.000	709.6	1018179.991	1892274.086	709.599	-0.009	0.086	-0.001	
2	R2-2-2443b	1018212.000	1892274.000	708.1	1018211.968	1892273.993	708.070	-0.032	-0.007	-0.030	
2	R2-2-2444b	1018228.000	1892274.000	708.5	1018227.977	1892274.143	708.269	-0.023	0.143	-0.231	
2	R2-2-2446b	1018164.000	1892240.000	710.7	1018163.943	1892240.057	710.491	-0.057	0.057	-0.209	
2	R2-2-2447b	1018180.000	1892240.000	709.3	1018180.063	1892240.097	709.286	0.063	0.097	-0.014	
2	R2-2-2448b	1018196.000	1892240.000	708.9	1018196.069	1892240.000	708.892	0.069	0.000	-0.008	
2	R2-2-2449b	1018212.000	1892240.000	709.5	1018212.020	1892239.968	709.416	0.020	-0.032	-0.084	
2	R2-2-244b	1018177.000	1892731.000	713.7	1018176.999	1892731.012	713.635	-0.001	0.012	-0.065	
2	R2-2-2453b	1018228.000	1892062.000	710.4	1018227.971	1892062.015	710.285	-0.029	0.015	-0.115	
2	R2-2-2456b	1018244.000	1892078.000	710.8	1018243.907	1892078.023	710.553	-0.093	0.023	-0.247	
2	R2-2-2458b	1018212.000	1892078.000	709.9	1018211.921	1892077.992	709.842	-0.079	-0.008	-0.058	
2	R2-2-245b	1018161.000	1892730.000	711.7	1018161.065	1892729.972	711.619	0.065	-0.028	-0.081	
2	R2-2-2460b	1018180.000	1892094.000	710.5	1018179.890	1892094.050	710.390	-0.110	0.050	-0.110	
2	R2-2-2461b	1018196.000	1892094.000	710.8	1018195.992	1892093.983	710.783	-0.008	-0.017	-0.017	
2	R2-2-2462b	1018212.000	1892094.000	709.9	1018212.051	1892094.057	709.842	0.051	0.057	-0.058	
2	R2-2-2463b	1018164.000	1892223.000	710.7	1018164.101	1892222.963	710.639	0.101	-0.037	-0.061	
2	R2-2-2464b	1018196.000	1892223.000	709	1018196.006	1892223.083	708.766	0.006	0.083	-0.234	
2	R2-2-2465b	1018228.000	1892223.000	710.3	1018228.032	1892222.960	710.294	0.032	-0.040	-0.006	
2	R2-2-2470b	1018212.000	1892206.000	709	1018211.974	1892206.052	708.932	-0.026	0.052	-0.068	
2	R2-2-2471b	1018196.000	1892206.000	709	1018196.070	1892206.059	708.969	0.070	0.059	-0.031	
2	R2-2-2472b	1018180.000	1892206.000	710.4	1018179.954	1892205.906	710.241	-0.046	-0.094	-0.159	
2	R2-2-2475b	1018228.000	1892094.000	710.4	1018227.947	1892093.953	710.155	-0.053	-0.047	-0.245	
2	R2-2-2476b	1018180.000	1892110.000	710.4	1018180.029	1892109.952	710.269	0.029	-0.048	-0.131	
2	R2-2-2477b	1018196.000	1892110.000	709.8	1018196.016	1892110.043	709.773	0.016	0.043	-0.027	
2	R2-2-2478b	1018212.000	1892110.000	710.4	1018212.012	1892110.022	710.355	0.012	0.022	-0.045	
2	R2-2-2479b	1018228.000	1892110.000	710	1018227.977	1892109.959	709.959	-0.023	-0.041	-0.041	
2	R2-2-2480b	1018244.000	1892110.000	710.5	1018243.983	1892109.966	710.442	-0.017	-0.034	-0.058	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2483b	1018228.000	1892126.000	710	1018227.971	1892126.004	709.938	-0.029	0.004	-0.062	
2	R2-2-2484b	1018212.000	1892126.000	709.4	1018212.029	1892126.073	709.351	0.029	0.073	-0.049	
2	R2-2-2485b	1018196.000	1892126.000	709.7	1018195.940	1892126.015	709.521	-0.060	0.015	-0.179	
2	R2-2-2486b	1018180.000	1892126.000	710.3	1018179.996	1892125.961	710.290	-0.004	-0.039	-0.010	
2	R2-2-2488b	1018228.000	1892190.000	710.3	1018228.005	1892189.918	710.220	0.005	-0.082	-0.080	
2	R2-2-2489b	1018212.000	1892190.000	708.9	1018211.980	1892190.062	708.890	-0.020	0.062	-0.010	
2	R2-2-2490b	1018196.000	1892190.000	710.5	1018195.965	1892190.042	710.463	-0.035	0.042	-0.037	
2	R2-2-2491b	1018180.000	1892174.000	710.5	1018180.056	1892174.032	710.407	0.056	0.032	-0.093	
2	R2-2-2492b	1018196.000	1892174.000	709.5	1018196.026	1892174.084	709.499	0.026	0.084	-0.001	
2	R2-2-2494b	1018228.000	1892174.000	710.6	1018228.087	1892173.983	710.459	0.087	-0.017	-0.141	
2	R2-2-2497b	1018228.000	1892156.000	709.6	1018228.009	1892156.057	709.544	0.009	0.057	-0.056	
2	R2-2-2498b	1018164.000	1892174.000	710.6	1018164.112	1892174.098	710.589	0.112	0.098	-0.011	
2	R2-2-2502b	1018027.000	1892948.000	709.7	1018026.982	1892948.031	709.430	-0.018	0.031	-0.270	
2	R2-2-2504b	1018001.000	1892904.000	710.9	1018001.025	1892903.932	710.894	0.025	-0.068	-0.006	
2	R2-2-2505b	1018132.000	1892393.000	710.6	1018132.016	1892393.043	710.503	0.016	0.043	-0.097	
2	R2-2-2506b	1018148.000	1892393.000	710.2	1018147.996	1892393.083	710.036	-0.004	0.083	-0.164	
2	R2-2-2507b	1018196.000	1892410.000	710	1018195.997	1892410.023	709.889	-0.003	0.023	-0.111	
2	R2-2-2508b	1018212.000	1892410.000	709.7	1018212.034	1892410.001	709.550	0.034	0.001	-0.150	
2	R2-2-2509b	1018212.000	1892158.000	709.4	1018211.961	1892158.006	709.205	-0.039	0.006	-0.195	
2	R2-2-2510b	1018196.000	1892158.000	709.6	1018195.967	1892157.948	709.569	-0.033	-0.052	-0.031	
2	R2-2-2511b	1018180.000	1892142.000	710.6	1018179.986	1892141.952	710.393	-0.014	-0.048	-0.207	
2	R2-2-2512b	1018196.000	1892142.000	708.6	1018195.971	1892142.057	708.582	-0.029	0.057	-0.018	
2	R2-2-2513b	1018212.000	1892142.000	709.9	1018212.037	1892142.009	709.874	0.037	0.009	-0.026	
2	R2-2-2515b	1018244.000	1892142.000	710.6	1018243.967	1892141.990	710.552	-0.033	-0.010	-0.048	
2	R2-2-2516b	1018164.000	1892623.000	710.8	1018164.029	1892622.978	710.713	0.029	-0.022	-0.087	
2	R2-2-2517b	1018164.000	1892528.000	709.5	1018164.047	1892528.021	709.389	0.047	0.021	-0.111	
2	R2-2-2518b	1018164.000	1892544.000	709.6	1018163.977	1892543.978	709.528	-0.023	-0.022	-0.072	
2	R2-2-2519b	1018148.000	1892592.000	709.2	1018148.111	1892592.048	708.998	0.111	0.048	-0.202	
2	R2-2-2520b	1018164.000	1892608.000	708.9	1018164.060	1892607.924	708.895	0.060	-0.076	-0.005	
2	R2-2-2521b	1018180.000	1892608.000	710.2	1018179.992	1892608.030	710.064	-0.008	0.030	-0.136	
2	R2-2-2522b	1018196.000	1892608.000	713.6	1018196.004	1892607.920	713.588	0.004	-0.080	-0.012	
2	R2-2-2523b	1018164.000	1892592.000	709.1	1018163.974	1892592.006	708.999	-0.026	0.006	-0.101	
2	R2-2-2524b	1018164.000	1892576.000	709.6	1018164.019	1892576.081	709.445	0.019	0.081	-0.155	
2	R2-2-2525b	1018164.000	1892560.000	710	1018164.064	1892559.977	709.940	0.064	-0.023	-0.060	
2	R2-2-2530b	1018033.000	1892981.000	712.6	1018032.933	1892981.070	712.401	-0.067	0.070	-0.199	
2	R2-2-2532b	1018065.000	1892998.000	713.9	1018065.038	1892997.974	713.888	0.038	-0.026	-0.012	
2	R2-2-2534b	1018196.000	1892592.000	714.3	1018195.944	1892591.962	714.137	-0.056	-0.038	-0.163	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-2535b	1018180.000	1892592.000	709.6	1018179.934	1892591.959	709.577	-0.066	-0.041	-0.023	
2	R2-2-2536b	1018180.000	1892576.000	709.4	1018179.992	1892575.989	709.282	-0.008	-0.011	-0.118	
2	R2-2-2537b	1018180.000	1892560.000	708.9	1018179.949	1892559.988	708.830	-0.051	-0.012	-0.070	
2	R2-2-2538b	1018180.000	1892544.000	709.2	1018179.994	1892543.975	709.180	-0.006	-0.025	-0.020	
2	R2-2-2539b	1018180.000	1892528.000	709.4	1018180.068	1892527.987	709.345	0.068	-0.013	-0.055	
2	R2-2-2541b	1018180.000	1892512.000	709.3	1018180.023	1892512.002	709.165	0.023	0.002	-0.135	
2	R2-2-2542b	1018180.000	1892496.000	709.8	1018180.087	1892496.029	709.769	0.087	0.029	-0.031	
2	R2-2-2543b	1018180.000	1892480.000	709.5	1018179.922	1892479.990	709.476	-0.078	-0.010	-0.024	
2	R2-2-2574b	1018083.000	1893030.000	714.2	1018082.948	1893030.046	714.046	-0.052	0.046	-0.154	
2	R2-2-2577b	1018088.000	1893009.000	714.2	1018088.071	1893009.054	714.087	0.071	0.054	-0.113	
2	R2-2-2579b	1018096.000	1893011.000	714	1018095.972	1893010.959	713.941	-0.028	-0.041	-0.059	
2	R2-2-2803b	1018130.000	1892942.000	712.7	1018130.005	1892942.066	712.659	0.005	0.066	-0.041	
2	R2-2-2804b	1018146.000	1892945.000	712.5	1018145.974	1892945.052	712.460	-0.026	0.052	-0.040	
2	R2-2-2805b	1018162.000	1892948.000	715.1	1018162.027	1892948.082	715.077	0.027	0.082	-0.023	
2	R2-2-2807b	1018135.000	1892913.000	713.6	1018135.143	1892913.111	713.554	0.143	0.111	-0.046	
2	R2-2-2808b	1018151.000	1892915.000	714.1	1018150.927	1892914.938	714.038	-0.073	-0.062	-0.062	
2	R2-2-2809b	1018168.000	1892917.000	715.8	1018168.010	1892917.021	715.715	0.010	0.021	-0.085	
2	R2-2-597b	1018033.000	1892887.000	708.3	1018032.994	1892886.945	708.298	-0.006	-0.055	-0.002	
2	R2-2-598b	1018017.000	1892885.000	708	1018017.053	1892885.027	707.986	0.053	0.027	-0.014	
2	R2-2-599b	1018001.000	1892884.000	714.7	1018000.993	1892883.991	712.325	-0.007	-0.009	-2.375	
2	R2-2-600b	1018049.000	1892888.000	708.4	1018049.089	1892888.051	708.354	0.089	0.051	-0.046	
2	R2-2-602b	1018018.000	1892919.000	709.8	1018018.015	1892918.991	709.706	0.015	-0.009	-0.094	
2	R2-2-604b	1018006.000	1892919.000	712.4	1018006.067	1892919.047	712.339	0.067	0.047	-0.061	
2	R2-2-605b	1018031.000	1892859.000	708	1018031.016	1892858.973	707.877	0.016	-0.027	-0.123	
2	R2-2-606b	1018015.000	1892859.000	714.3	1018014.993	1892858.938	711.704	-0.007	-0.062	-2.596	
2	R2-2-607b	1018043.000	1892827.000	709.7	1018042.936	1892827.013	709.668	-0.064	0.013	-0.032	
2	R2-2-608b	1018026.000	1892827.000	711.4	1018026.067	1892827.069	711.307	0.067	0.069	-0.093	
2	R2-2-609b	1018047.000	1892859.000	707.9	1018046.998	1892859.057	707.786	-0.002	0.057	-0.114	
2	R2-2-610b	1018064.000	1892859.000	709.3	1018064.008	1892859.025	709.076	0.008	0.025	-0.224	
2	R2-2-612b	1018059.000	1892827.000	707.8	1018059.019	1892826.974	707.757	0.019	-0.026	-0.043	
2	R2-2-613b	1018076.000	1892828.000	709.2	1018076.003	1892828.005	709.037	0.003	0.005	-0.163	
2	R2-2-615b	1018077.000	1892842.000	709.4	1018077.073	1892841.987	709.194	0.073	-0.013	-0.206	
2	R2-2-617b	1018073.000	1892799.000	709.8	1018073.007	1892798.928	709.183	0.007	-0.072	-0.617	
2	R2-2-619b	1018056.000	1892798.000	707.8	1018056.113	1892797.996	707.647	0.113	-0.004	-0.153	
2	R2-2-620b	1018040.000	1892798.000	708.6	1018039.879	1892798.040	708.426	-0.121	0.040	-0.174	
2	R2-2-621b	1018098.000	1892770.000	710.4	1018097.958	1892769.949	710.368	-0.042	-0.051	-0.032	
2	R2-2-622b	1018082.000	1892770.000	709.3	1018081.907	1892770.013	709.254	-0.093	0.013	-0.046	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-623b	1018065.000	1892769.000	709.8	1018065.075	1892769.012	709.792	0.075	0.012	-0.008	
2	R2-2-625b	1018033.000	1892767.000	712.8	1018032.941	1892767.014	712.760	-0.059	0.014	-0.040	
2	R2-2-626b	1018102.000	1892737.000	710.3	1018102.067	1892736.921	710.191	0.067	-0.079	-0.109	
2	R2-2-627b	1018118.000	1892738.000	710.4	1018117.972	1892738.060	710.341	-0.028	0.060	-0.059	
2	R2-2-628b	1018085.000	1892737.000	710.8	1018085.027	1892737.001	710.737	0.027	0.001	-0.063	
2	R2-2-629b	1018069.000	1892736.000	712.5	1018069.011	1892735.970	712.402	0.011	-0.030	-0.098	
2	R2-2-630b	1018056.000	1892736.000	714.2	1018055.901	1892736.073	713.049	-0.099	0.073	-1.151	
2	R2-2-631b	1018089.000	1892704.000	710.8	1018089.027	1892703.975	710.679	0.027	-0.025	-0.121	
2	R2-2-632b	1018072.000	1892703.000	709.4	1018071.974	1892702.957	709.294	-0.026	-0.043	-0.106	
2	R2-2-633b	1018092.000	1892671.000	708.8	1018092.035	1892670.940	708.630	0.035	-0.060	-0.170	
2	R2-2-635b	1018095.000	1892635.000	710.2	1018094.956	1892635.041	710.187	-0.044	0.041	-0.013	
2	R2-2-636b	1018079.000	1892633.000	710.6	1018078.950	1892632.930	710.598	-0.050	-0.070	-0.002	
2	R2-2-637b	1018105.000	1892603.000	709	1018105.001	1892603.051	708.998	0.001	0.051	-0.002	
2	R2-2-640b	1018092.000	1892570.000	710.1	1018092.024	1892570.022	709.780	0.024	0.022	-0.320	
2	R2-2-641b	1018113.000	1892536.000	710.1	1018112.908	1892535.991	709.862	-0.092	-0.009	-0.238	
2	R2-2-642b	1018096.000	1892536.000	711.6	1018096.034	1892536.044	711.460	0.034	0.044	-0.140	
2	R2-2-643b	1018104.000	1892518.000	712.7	1018104.013	1892518.079	712.366	0.013	0.079	-0.334	Point was surveyed at existing ground surface
2	R2-2-646b	1018123.000	1892438.000	713.5	1018123.021	1892438.121	713.309	0.021	0.121	-0.191	
2	R2-2-648b	1018194.000	1892290.000	709.4	1018193.956	1892290.018	709.304	-0.044	0.018	-0.096	
2	R2-2-649b	1018184.000	1892255.000	708.8	1018183.982	1892254.907	708.788	-0.018	-0.093	-0.012	
2	R2-2-650b	1018168.000	1892253.000	710.1	1018168.027	1892253.031	710.039	0.027	0.031	-0.061	
2	R2-2-651b	1018216.000	1892260.000	708.8	1018216.057	1892260.005	708.685	0.057	0.005	-0.115	
2	R2-2-652b	1018207.000	1892226.000	708.7	1018207.021	1892225.929	708.656	0.021	-0.071	-0.044	
2	R2-2-653b	1018174.000	1892224.000	710.8	1018174.053	1892223.994	710.686	0.053	-0.006	-0.114	
2	R2-2-654b	1018181.000	1892193.000	710	1018181.061	1892192.998	709.902	0.061	-0.002	-0.098	
2	R2-2-655b	1018176.000	1892160.000	710.2	1018175.966	1892159.995	710.124	-0.034	-0.005	-0.076	
2	R2-2-656b	1018186.000	1892128.000	709.9	1018186.053	1892128.007	709.884	0.053	0.007	-0.016	
2	R2-2-658b	1018193.000	1892090.000	709.6	1018193.086	1892089.946	709.574	0.086	-0.054	-0.026	
2	R2-2-659b	1018239.000	1892090.000	709.4	1018238.949	1892090.041	709.296	-0.051	0.041	-0.104	
2	R2-2-660b	1018233.000	1892126.000	709.8	1018233.099	1892126.080	709.749	0.099	0.080	-0.051	
2	R2-2-662b	1018222.000	1892088.000	709.5	1018221.971	1892088.047	709.458	-0.029	0.047	-0.042	
2	R2-2-664b	1018212.000	1892038.000	711.3	1018212.061	1892038.034	710.968	0.061	0.034	-0.332	
2	R2-2-666b	1018185.000	1892044.000	714.8	1018184.988	1892044.004	714.796	-0.012	0.004	-0.004	
2	R2-2-667b	1018181.000	1892072.000	710.9	1018180.928	1892072.045	710.874	-0.072	0.045	-0.026	
2	R2-2-668b	1018195.000	1892011.000	716.7	1018195.053	1892011.033	716.088	0.053	0.033	-0.612	
2	R2-2-675b	1018116.000	1892975.000	714.3	1018116.003	1892975.032	714.236	0.003	0.032	-0.064	
2	R2-2-676b	1018100.000	1892971.000	714	1018099.964	1892971.051	713.995	-0.036	0.051	-0.005	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-677b	1018085.000	1892968.000	714.3	1018085.069	1892968.003	713.904	0.069	0.003	-0.396	
2	R2-2-689b	1018142.000	1892878.000	714.4	1018142.081	1892877.983	714.324	0.081	-0.017	-0.076	
2	R2-2-690b	1018158.000	1892880.000	714.5	1018158.018	1892879.998	714.372	0.018	-0.002	-0.128	
2	R2-2-691b	1018174.000	1892883.000	714.7	1018174.088	1892883.018	714.668	0.088	0.018	-0.032	
2	R2-2-694b	1018167.000	1892849.000	713.9	1018167.047	1892848.973	713.655	0.047	-0.027	-0.245	
2	R2-2-695b	1018183.000	1892851.000	715.9	1018183.014	1892850.972	715.473	0.014	-0.028	-0.427	
2	R2-2-697b	1018151.000	1892810.000	711.8	1018150.990	1892809.933	711.727	-0.010	-0.067	-0.073	
2	R2-2-698b	1018168.000	1892812.000	714.9	1018167.970	1892811.960	714.771	-0.030	-0.040	-0.129	
2	R2-2-699b	1018184.000	1892814.000	715.8	1018183.979	1892814.016	715.631	-0.021	0.016	-0.169	
2	R2-2-701b	1018146.000	1892778.000	712.9	1018146.044	1892777.990	712.721	0.044	-0.010	-0.179	
2	R2-2-702b	1018162.000	1892779.000	713.7	1018161.948	1892778.973	713.547	-0.052	-0.027	-0.153	
2	R2-2-705b	1018198.000	1892748.000	715.9	1018197.996	1892747.962	715.797	-0.004	-0.038	-0.103	
2	R2-2-706b	1018181.000	1892747.000	714.3	1018180.971	1892747.093	714.157	-0.029	0.093	-0.143	
2	R2-2-707b	1018166.000	1892746.000	712.6	1018166.019	1892746.036	712.577	0.019	0.036	-0.023	
2	R2-2-708b	1018151.000	1892744.000	709.6	1018150.912	1892744.024	709.386	-0.088	0.024	-0.214	
2	R2-2-709b	1018189.000	1892602.000	712.5	1018188.983	1892601.978	712.476	-0.017	-0.022	-0.024	
2	R2-2-710b	1018204.000	1892602.000	714.9	1018204.022	1892602.050	714.670	0.022	0.050	-0.230	
2	R2-2-711b	1018203.000	1892569.000	715.1	1018203.093	1892568.942	714.874	0.093	-0.058	-0.226	
2	R2-2-777b	1017991.000	1892902.000	712.2	1017990.975	1892902.084	712.051	-0.025	0.084	-0.149	
2	R2-2-B1	1018079.500	1893037.400	714.2	1018079.546	1893037.516	714.077	0.046	0.116	-0.123	
2	R2-2-B10	1018084.000	1893007.000	714.2	1018084.027	1893006.941	714.017	0.027	-0.059	-0.183	
2	R2-2-B100	1018058.000	1892875.000	707.5	1018057.988	1892875.032	707.477	-0.012	0.032	-0.023	
2	R2-2-B101	1018107.500	1892875.000	710	1018107.493	1892874.997	709.921	-0.007	-0.003	-0.079	
2	R2-2-B102	1018124.000	1892875.000	710	1018123.940	1892874.966	709.866	-0.060	-0.034	-0.134	
2	R2-2-B103	1018167.500	1892874.000	714.7	1018167.488	1892873.936	714.429	-0.012	-0.064	-0.271	
2	R2-2-B104	1017992.200	1892870.700	714.7	1017992.273	1892870.705	714.649	0.073	0.005	-0.051	
2	R2-2-B105	1018143.500	1892870.500	714.4	1018143.520	1892870.558	714.260	0.020	0.058	-0.140	
2	R2-2-B106	1018107.500	1892867.500	710	1018107.478	1892867.561	710.000	-0.022	0.061	0.000	
2	R2-2-B107	1018124.000	1892867.500	710	1018124.036	1892867.466	709.919	0.036	-0.034	-0.081	
2	R2-2-B108	1018183.400	1892867.100	713.2	1018183.499	1892867.182	713.162	0.099	0.082	-0.038	
2	R2-2-B109	1018169.000	1892866.000	713.2	1018169.082	1892866.128	713.158	0.082	0.128	-0.042	
2	R2-2-B11	1018101.500	1893007.000	714	1018101.531	1893007.075	713.915	0.031	0.075	-0.085	
2	R2-2-B110	1018072.000	1892859.500	709.3	1018071.906	1892859.501	709.265	-0.094	0.001	-0.035	
2	R2-2-B111	1017997.700	1892859.000	714.3	1017997.685	1892859.091	714.286	-0.015	0.091	-0.014	
2	R2-2-B112	1018073.000	1892853.000	709.3	1018073.050	1892853.031	709.189	0.050	0.031	-0.111	
2	R2-2-B113	1018017.000	1892852.500	714.3	1018017.052	1892852.485	711.559	0.052	-0.015	-2.741	
2	R2-2-B114	1018025.000	1892852.500	708	1018024.974	1892852.484	707.979	-0.026	-0.016	-0.021	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B115	1018185.800	1892850.900	715.9	1018185.802	1892850.921	715.795	0.002	0.021	-0.105	
2	R2-2-B116	1018158.500	1892848.000	713.9	1018158.476	1892847.963	713.671	-0.024	-0.037	-0.229	
2	R2-2-B117	1018014.500	1892846.000	714.3	1018014.523	1892846.017	711.863	0.023	0.017	-2.437	Point was surveyed at existing ground surface
2	R2-2-B118	1018026.000	1892846.000	708.9	1018025.915	1892845.992	708.861	-0.085	-0.008	-0.039	
2	R2-2-B119	1018085.000	1892843.500	709.4	1018085.042	1892843.516	709.370	0.042	0.016	-0.030	
2	R2-2-B12	1018089.500	1893004.000	714.2	1018089.507	1893003.956	714.061	0.007	-0.044	-0.139	
2	R2-2-B120	1018183.500	1892841.500	715.9	1018183.501	1892841.467	715.751	0.001	-0.033	-0.149	
2	R2-2-B121	1018175.500	1892840.500	713.9	1018175.580	1892840.568	713.661	0.080	0.068	-0.239	
2	R2-2-B122	1018007.000	1892839.400	713	1018006.988	1892839.306	712.835	-0.012	-0.094	-0.165	
2	R2-2-B123	1018016.500	1892839.000	713	1018016.480	1892838.950	712.883	-0.020	-0.050	-0.117	
2	R2-2-B124	1018159.000	1892839.000	711.8	1018159.103	1892839.018	711.735	0.103	0.018	-0.065	
2	R2-2-B125	1018141.500	1892838.000	711.8	1018141.413	1892837.937	711.793	-0.087	-0.063	-0.007	
2	R2-2-B126	1018022.500	1892836.500	713	1018022.482	1892836.577	711.729	-0.018	0.077	-1.271	Point was surveyed at existing ground surface
2	R2-2-B127	1018176.000	1892831.500	713.8	1018175.893	1892831.511	713.780	-0.107	0.011	-0.020	
2	R2-2-B128	1018012.000	1892829.500	713	1018012.061	1892829.601	712.883	0.061	0.101	-0.117	
2	R2-2-B129	1018141.500	1892829.500	711.8	1018141.488	1892829.563	711.618	-0.012	0.063	-0.182	
2	R2-2-B13	1018052.700	1893002.900	712.4	1018052.721	1893002.938	712.321	0.021	0.038	-0.079	
2	R2-2-B130	1018084.000	1892828.000	709.2	1018083.970	1892828.033	709.181	-0.030	0.033	-0.019	
2	R2-2-B131	1018184.000	1892823.000	715.8	1018184.013	1892823.060	715.702	0.013	0.060	-0.098	
2	R2-2-B132	1018074.500	1892814.000	707.6	1018074.445	1892813.910	707.578	-0.055	-0.090	-0.022	
2	R2-2-B133	1018015.700	1892812.200	710.8	1018015.663	1892812.182	710.760	-0.037	-0.018	-0.040	
2	R2-2-B134	1018141.500	1892812.000	711.8	1018141.569	1892812.059	711.578	0.069	0.059	-0.222	
2	R2-2-B135	1018107.500	1892807.000	709	1018107.402	1892806.948	708.898	-0.098	-0.052	-0.102	
2	R2-2-B136	1018094.000	1892806.500	709	1018093.893	1892806.447	708.816	-0.107	-0.053	-0.184	
2	R2-2-B137	1018185.100	1892805.000	715.8	1018185.128	1892804.979	715.794	0.028	-0.021	-0.006	
2	R2-2-B138	1018175.500	1892804.000	714.9	1018175.473	1892803.999	714.894	-0.027	-0.001	-0.006	
2	R2-2-B139	1018107.500	1892800.000	709	1018107.495	1892799.957	708.885	-0.005	-0.043	-0.115	
2	R2-2-B14	1018072.200	1893002.400	713.9	1018072.173	1893002.466	713.876	-0.027	0.066	-0.024	
2	R2-2-B140	1018094.000	1892799.500	709	1018094.015	1892799.378	708.951	0.015	-0.122	-0.049	
2	R2-2-B141	1018081.000	1892799.000	709.8	1018081.050	1892799.031	709.191	0.050	0.031	-0.609	
2	R2-2-B142	1018157.000	1892797.500	711.7	1018156.942	1892797.519	711.596	-0.058	0.019	-0.104	
2	R2-2-B143	1018141.000	1892796.500	711.7	1018141.018	1892796.497	711.567	0.018	-0.003	-0.133	
2	R2-2-B144	1018174.500	1892795.500	712.7	1018174.435	1892795.460	712.658	-0.065	-0.040	-0.042	
2	R2-2-B145	1018116.000	1892793.000	710.7	1018115.982	1892793.022	710.581	-0.018	0.022	-0.119	
2	R2-2-B146	1018124.000	1892793.000	710.7	1018123.954	1892792.948	710.676	-0.046	-0.052	-0.024	
2	R2-2-B147	1018094.000	1892792.500	710.6	1018093.967	1892792.460	709.401	-0.033	-0.040	-1.199	
2	R2-2-B148	1018023.300	1892790.400	710.7	1018023.343	1892790.471	710.622	0.043	0.071	-0.078	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B149	1018141.000	1892789.500	711.7	1018141.068	1892789.480	711.651	0.068	-0.020	-0.049	
2	R2-2-B15	1018054.700	1892997.400	712.4	1018054.681	1892997.363	712.257	-0.019	-0.037	-0.143	
2	R2-2-B150	1018124.000	1892786.000	710.7	1018124.063	1892786.045	710.624	0.063	0.045	-0.076	
2	R2-2-B151	1018170.000	1892779.500	713.7	1018170.005	1892779.468	713.595	0.005	-0.032	-0.105	
2	R2-2-B152	1018107.500	1892778.500	710.7	1018107.390	1892778.522	710.550	-0.110	0.022	-0.150	
2	R2-2-B153	1018124.000	1892778.500	710.7	1018124.054	1892778.577	710.658	0.054	0.077	-0.042	
2	R2-2-B154	1018139.000	1892774.500	712.9	1018138.984	1892774.478	712.813	-0.016	-0.022	-0.087	
2	R2-2-B155	1018107.000	1892770.500	710.4	1018106.960	1892770.526	710.394	-0.040	0.026	-0.006	
2	R2-2-B156	1018023.700	1892770.100	713.5	1018019.050	1892769.251	713.484	-4.650	-0.849	-0.016	Excavated to plastic barrier, past bound. pt.
2	R2-2-B157	1018107.500	1892763.500	710.3	1018107.450	1892763.513	710.152	-0.050	0.013	-0.148	
2	R2-2-B158	1018124.000	1892763.500	710.3	1018124.037	1892763.401	710.212	0.037	-0.099	-0.088	
2	R2-2-B159	1018167.500	1892762.000	714	1018167.512	1892761.904	713.826	0.012	-0.096	-0.174	
2	R2-2-B16	1018113.500	1892997.000	712.9	1018113.522	1892996.934	712.796	0.022	-0.066	-0.104	
2	R2-2-B160	1018138.500	1892758.000	711.6	1018138.487	1892757.987	711.528	-0.013	-0.013	-0.072	
2	R2-2-B161	1018194.800	1892756.900	715.9	1018194.746	1892756.751	715.892	-0.054	-0.149	-0.008	
2	R2-2-B162	1018026.900	1892756.000	713.8	1018021.265	1892755.965	713.731	-5.635	-0.035	-0.069	Excavated to plastic barrier, past bound. pt.
2	R2-2-B163	1018124.000	1892756.000	710.3	1018123.940	1892756.022	710.261	-0.060	0.022	-0.039	
2	R2-2-B164	1018187.500	1892756.000	714.3	1018187.435	1892756.026	714.249	-0.065	0.026	-0.051	
2	R2-2-B165	1018170.000	1892754.500	712.6	1018170.045	1892754.571	712.132	0.045	0.071	-0.468	
2	R2-2-B166	1018141.500	1892742.500	709.6	1018141.567	1892742.550	709.486	0.067	0.050	-0.114	
2	R2-2-B167	1018196.200	1892739.800	715.9	1018196.220	1892739.827	715.894	0.020	0.027	-0.006	
2	R2-2-B168	1018125.000	1892739.500	710.4	1018124.917	1892739.496	710.233	-0.083	-0.004	-0.167	
2	R2-2-B169	1018182.500	1892739.000	714.3	1018182.460	1892739.034	714.229	-0.040	0.034	-0.071	
2	R2-2-B17	1018070.000	1892996.500	713.9	1018070.065	1892996.520	713.865	0.065	0.020	-0.035	
2	R2-2-B170	1018180.500	1892731.000	713.7	1018180.482	1892730.993	713.651	-0.018	-0.007	-0.049	
2	R2-2-B171	1018030.000	1892728.700	715.3	1018030.146	1892728.678	715.279	0.146	-0.022	-0.021	
2	R2-2-B172	1018141.500	1892726.500	712	1018141.488	1892726.427	711.740	-0.012	-0.073	-0.260	
2	R2-2-B173	1018180.000	1892725.000	713.7	1018179.975	1892725.014	713.675	-0.025	0.014	-0.025	
2	R2-2-B174	1018124.000	1892724.000	710.6	1018123.914	1892724.055	710.411	-0.086	0.055	-0.189	
2	R2-2-B175	1018194.500	1892723.500	715.3	1018194.517	1892723.475	715.174	0.017	-0.025	-0.126	
2	R2-2-B176	1018142.500	1892718.500	711.9	1018142.484	1892718.457	711.613	-0.016	-0.043	-0.287	
2	R2-2-B177	1018035.100	1892715.000	715.3	1018037.356	1892714.944	715.005	2.256	-0.056	-0.295	Excavated to plastic barrier, inside bound. pt.
2	R2-2-B178	1018150.500	1892709.500	711.9	1018150.615	1892709.512	711.712	0.115	0.012	-0.188	
2	R2-2-B179	1018043.500	1892706.000	711.7	1018039.961	1892705.952	711.402	-3.539	-0.048	-0.298	Excavated to plastic barrier, past bound. pt.
2	R2-2-B18	1018093.500	1892992.000	714	1018093.564	1892992.022	713.990	0.064	0.022	-0.010	
2	R2-2-B180	1018124.000	1892706.000	710	1018123.957	1892706.101	709.967	-0.043	0.101	-0.033	
2	R2-2-B181	1018196.600	1892700.400	714.1	1018196.641	1892700.436	713.965	0.041	0.036	-0.135	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 2 Section R2-2**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B182	1018197.800	1892690.500	714.9	1018197.744	1892690.517	714.899	-0.056	0.017	-0.001	
2	R2-2-B183	1018045.400	1892689.000	714.2	1018045.527	1892689.103	714.164	0.127	0.103	-0.036	
2	R2-2-B184	1018124.000	1892689.000	709.6	1018124.093	1892689.065	709.598	0.093	0.065	-0.002	
2	R2-2-B185	1018153.000	1892689.000	712.5	1018152.911	1892688.925	712.309	-0.089	-0.075	-0.191	
2	R2-2-B186	1018153.000	1892681.000	712.5	1018153.014	1892680.984	711.865	0.014	-0.016	-0.635	Point was surveyed at existing ground surface
2	R2-2-B187	1018047.900	1892678.400	712.6	1018047.960	1892678.489	712.549	0.060	0.089	-0.051	
2	R2-2-B188	1018124.000	1892673.000	710.6	1018123.941	1892673.078	710.589	-0.059	0.078	-0.011	
2	R2-2-B189	1018158.000	1892673.000	713.1	1018157.937	1892673.075	712.937	-0.063	0.075	-0.163	
2	R2-2-B190	1018066.000	1892665.000	710.9	1018066.115	1892665.035	710.853	0.115	0.035	-0.047	
2	R2-2-B191	1018140.000	1892665.000	708.9	1018140.061	1892664.955	708.507	0.061	-0.045	-0.393	
2	R2-2-B192	1018148.000	1892665.000	708.9	1018147.947	1892664.955	708.871	-0.053	-0.045	-0.029	
2	R2-2-B193	1018174.500	1892658.500	713.9	1018174.498	1892658.446	713.593	-0.002	-0.054	-0.307	
2	R2-2-B194	1018157.000	1892657.500	708.9	1018157.060	1892657.396	708.888	0.060	-0.104	-0.012	
2	R2-2-B195	1018074.500	1892657.000	710.9	1018074.470	1892656.938	710.753	-0.030	-0.062	-0.147	
2	R2-2-B196	1018124.000	1892657.000	708.8	1018124.007	1892656.917	708.729	0.007	-0.083	-0.071	
2	R2-2-B197	1018140.000	1892657.000	708.9	1018140.031	1892657.068	708.871	0.031	0.068	-0.029	
2	R2-2-B198	1018064.000	1892653.000	710.7	1018064.006	1892652.940	710.273	0.006	-0.060	-0.427	
2	R2-2-B199	1018053.800	1892651.900	710.7	1018053.749	1892651.958	710.511	-0.051	0.058	-0.189	
2	R2-2-B2	1018087.500	1893031.000	714.2	1018087.564	1893030.996	713.790	0.064	-0.004	-0.410	
2	R2-2-B20	1018116.000	1892990.000	712.9	1018115.939	1892989.950	712.896	-0.061	-0.050	-0.004	
2	R2-2-B200	1018164.000	1892649.000	710.6	1018163.944	1892648.989	710.437	-0.056	-0.011	-0.163	
2	R2-2-B201	1018066.000	1892648.500	710.7	1018066.119	1892648.582	710.452	0.119	0.082	-0.248	
2	R2-2-B202	1018124.000	1892648.500	708.6	1018124.061	1892648.528	708.513	0.061	0.028	-0.087	
2	R2-2-B203	1018132.000	1892648.500	708.6	1018131.930	1892648.520	708.401	-0.070	0.020	-0.199	
2	R2-2-B204	1018061.000	1892638.900	710.7	1018060.935	1892638.960	710.542	-0.065	0.060	-0.158	
2	R2-2-B205	1018072.500	1892636.500	710.6	1018072.499	1892636.597	710.430	-0.001	0.097	-0.170	
2	R2-2-B206	1018066.000	1892631.500	714.4	1018066.058	1892631.567	713.185	0.058	0.067	-1.215	Point was surveyed at existing ground surface
2	R2-2-B207	1018059.300	1892623.000	714.4	1018057.083	1892622.963	714.368	-2.217	-0.037	-0.032	Excavated to plastic barrier, past bound. pt.
2	R2-2-B208	1018085.500	1892613.000	710.2	1018085.510	1892613.044	710.157	0.010	0.044	-0.043	
2	R2-2-B209	1018093.500	1892613.000	710.8	1018093.455	1892613.167	710.693	-0.045	0.167	-0.107	
2	R2-2-B21	1018040.100	1892986.300	712.6	1018040.127	1892986.371	712.428	0.027	0.071	-0.172	
2	R2-2-B210	1018061.100	1892608.000	715.1	1018057.729	1892607.895	715.098	-3.371	-0.105	-0.002	Excavated to plastic barrier, past bound. pt.
2	R2-2-B211	1018204.000	1892606.900	714.9	1018202.734	1892606.881	714.669	-1.266	-0.019	-0.231	Excavated to plastic barrier, inside boundary pt.
2	R2-2-B212	1018077.000	1892605.500	711.5	1018076.914	1892605.422	711.429	-0.086	-0.078	-0.071	
2	R2-2-B213	1018096.500	1892603.000	709	1018096.549	1892603.039	708.999	0.049	0.039	-0.001	
2	R2-2-B214	1018205.700	1892599.500	714.9	1018202.489	1892599.407	714.881	-3.211	-0.093	-0.019	Excavated to plastic barrier, inside boundary pt.
2	R2-2-B215	1018074.000	1892592.000	714.7	1018073.909	1892591.991	714.661	-0.091	-0.009	-0.039	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
Δ Elevation > 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B216	1018091.000	1892592.000	710.6	1018091.058	1892592.008	710.590	0.058	0.008	-0.010	
2	R2-2-B217	1018203.400	1892592.000	714.3	1018202.524	1892591.985	714.279	-0.876	-0.015	-0.021	Excavated to plastic barrier, inside boundary pt.
2	R2-2-B218	1018061.600	1892590.600	714.7	1018058.768	1892590.599	714.659	-2.832	-0.001	-0.041	Excavated to plastic barrier, past bound. pt.
2	R2-2-B219	1018202.000	1892587.500	714.1	1018202.040	1892587.406	713.976	0.040	-0.094	-0.124	
2	R2-2-B22	1018070.000	1892984.500	714.7	1018069.940	1892984.474	714.669	-0.060	-0.026	-0.031	
2	R2-2-B220	1018077.000	1892586.500	713.6	1018076.959	1892586.544	713.545	-0.041	0.044	-0.055	
2	R2-2-B221	1018091.000	1892584.000	710.6	1018091.060	1892583.987	710.584	0.060	-0.013	-0.016	
2	R2-2-B222	1018104.000	1892581.000	710.6	1018103.998	1892581.007	710.596	-0.002	0.007	-0.004	
2	R2-2-B223	1018077.500	1892578.500	713.6	1018077.449	1892578.536	713.575	-0.051	0.036	-0.025	
2	R2-2-B224	1018074.500	1892576.000	713.6	1018074.470	1892575.946	713.484	-0.030	-0.054	-0.116	
2	R2-2-B225	1018061.200	1892575.300	714.1	1018061.225	1892575.262	713.932	0.025	-0.038	-0.168	
2	R2-2-B226	1018087.500	1892573.000	710.1	1018087.598	1892573.027	710.051	0.098	0.027	-0.049	
2	R2-2-B227	1018120.500	1892573.000	710.2	1018120.528	1892572.942	710.140	0.028	-0.058	-0.060	
2	R2-2-B228	1018100.500	1892570.000	710.1	1018100.470	1892569.933	710.086	-0.030	-0.067	-0.014	
2	R2-2-B229	1018132.000	1892568.000	710.2	1018132.046	1892568.034	710.179	0.046	0.034	-0.021	
2	R2-2-B23	1018057.000	1892981.500	712.8	1018056.911	1892981.507	712.774	-0.089	0.007	-0.026	
2	R2-2-B230	1018140.000	1892568.000	709.5	1018139.939	1892568.046	709.475	-0.061	0.046	-0.025	
2	R2-2-B231	1018087.500	1892565.000	710.1	1018087.462	1892564.941	709.873	-0.038	-0.059	-0.227	
2	R2-2-B232	1018112.500	1892565.000	710.3	1018112.473	1892564.977	710.079	-0.027	-0.023	-0.221	
2	R2-2-B233	1018060.800	1892560.300	714.1	1018061.812	1892560.226	713.788	1.012	-0.074	-0.312	Excavated to plastic barrier, inside bound. pt.
2	R2-2-B234	1018074.500	1892560.000	714.1	1018074.400	1892559.957	714.056	-0.100	-0.043	-0.044	
2	R2-2-B235	1018091.000	1892560.000	710	1018090.984	1892560.081	709.964	-0.016	0.081	-0.036	
2	R2-2-B236	1018124.000	1892560.000	710.3	1018123.947	1892560.023	710.239	-0.053	0.023	-0.061	
2	R2-2-B237	1018140.000	1892560.000	709.5	1018140.109	1892560.034	709.358	0.109	0.034	-0.142	
2	R2-2-B238	1018198.500	1892559.500	715.1	1018198.488	1892559.471	715.085	-0.012	-0.029	-0.015	
2	R2-2-B239	1018204.500	1892559.000	715.1	1018204.537	1892559.020	714.957	0.037	0.020	-0.143	
2	R2-2-B24	1018030.600	1892980.400	712.6	1018032.143	1892981.644	712.441	1.543	1.244	-0.159	Excavated to culvert edge
2	R2-2-B240	1018187.000	1892555.000	708.9	1018187.101	1892554.938	708.799	0.101	-0.062	-0.101	
2	R2-2-B241	1018083.000	1892552.000	713.8	1018083.020	1892551.941	713.484	0.020	-0.059	-0.316	
2	R2-2-B242	1018124.000	1892552.000	710	1018123.959	1892551.990	709.837	-0.041	-0.010	-0.163	
2	R2-2-B243	1018140.000	1892552.000	710	1018140.074	1892552.079	709.923	0.074	0.079	-0.077	
2	R2-2-B244	1018187.000	1892547.000	709.2	1018187.002	1892546.913	709.187	0.002	-0.087	-0.013	
2	R2-2-B245	1018062.800	1892543.500	714.8	1018062.852	1892543.576	714.640	0.052	0.076	-0.160	
2	R2-2-B246	1018097.500	1892532.000	711.6	1018097.576	1892531.993	711.454	0.076	-0.007	-0.146	
2	R2-2-B247	1018122.500	1892532.000	709.2	1018122.575	1892532.078	709.124	0.075	0.078	-0.076	
2	R2-2-B248	1018091.000	1892528.000	713.8	1018090.971	1892527.833	713.339	-0.029	-0.167	-0.461	
2	R2-2-B249	1018124.000	1892528.000	709.2	1018123.971	1892528.015	709.049	-0.029	0.015	-0.151	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

12/22/05

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B25	1018050.000	1892978.400	712.4	1018049.964	1892978.342	712.395	-0.036	-0.058	-0.005	
2	R2-2-B250	1018188.000	1892528.000	709.4	1018187.964	1892528.043	709.376	-0.036	0.043	-0.024	
2	R2-2-B251	1018110.000	1892523.000	712.7	1018109.977	1892522.932	711.714	-0.023	-0.068	-0.986	Point was surveyed at existing ground surface
2	R2-2-B252	1018095.000	1892522.500	713.7	1018094.989	1892522.482	713.503	-0.011	-0.018	-0.197	
2	R2-2-B253	1018124.000	1892520.000	709.2	1018123.928	1892520.007	709.036	-0.072	0.007	-0.164	
2	R2-2-B254	1018140.000	1892520.000	709.5	1018140.016	1892519.933	709.435	0.016	-0.067	-0.065	
2	R2-2-B255	1018097.500	1892517.500	713.7	1018097.469	1892517.474	713.532	-0.031	-0.026	-0.168	
2	R2-2-B256	1018110.000	1892515.000	712.7	1018109.992	1892515.016	711.872	-0.008	0.016	-0.828	Point was surveyed at existing ground surface
2	R2-2-B257	1018187.000	1892514.500	709.3	1018186.988	1892514.449	709.275	-0.012	-0.051	-0.025	
2	R2-2-B258	1018071.700	1892512.200	715.5	1018071.688	1892512.201	715.499	-0.012	0.001	-0.001	
2	R2-2-B259	1018091.000	1892512.000	713.7	1018090.883	1892512.071	713.624	-0.117	0.071	-0.076	
2	R2-2-B26	1018120.000	1892975.500	714.3	1018119.956	1892975.441	714.200	-0.044	-0.059	-0.100	
2	R2-2-B260	1018140.000	1892512.000	709.5	1018139.989	1892512.062	709.412	-0.011	0.062	-0.088	
2	R2-2-B261	1018107.000	1892510.000	712.7	1018106.894	1892510.016	712.275	-0.106	0.016	-0.425	Point was surveyed at existing ground surface
2	R2-2-B262	1018140.000	1892505.000	710.2	1018140.005	1892504.936	710.011	0.005	-0.064	-0.189	
2	R2-2-B263	1018091.000	1892504.000	714.2	1018091.148	1892503.915	714.198	0.148	-0.085	-0.002	
2	R2-2-B264	1018099.000	1892504.000	714.2	1018098.820	1892504.050	713.955	-0.180	0.050	-0.245	
2	R2-2-B265	1018124.000	1892504.000	709.9	1018123.921	1892503.996	709.807	-0.079	-0.004	-0.093	
2	R2-2-B266	1018104.500	1892499.000	714.2	1018104.412	1892499.054	714.104	-0.088	0.054	-0.096	
2	R2-2-B267	1018104.000	1892496.000	714.2	1018103.995	1892496.000	714.124	-0.005	0.000	-0.076	
2	R2-2-B268	1018124.000	1892496.000	709.9	1018124.009	1892495.966	709.818	0.009	-0.034	-0.082	
2	R2-2-B269	1018188.000	1892496.000	709.8	1018188.032	1892495.977	709.796	0.032	-0.023	-0.004	
2	R2-2-B270	1018080.200	1892495.600	716.8	1018080.123	1892495.675	716.724	-0.077	0.075	-0.076	
2	R2-2-B271	1018155.000	1892489.000	710.2	1018155.052	1892489.023	710.188	0.052	0.023	-0.012	
2	R2-2-B272	1018124.000	1892488.000	709.9	1018123.981	1892487.939	709.668	-0.019	-0.061	-0.232	
2	R2-2-B273	1018140.000	1892488.000	709.9	1018139.955	1892488.006	709.824	-0.045	0.006	-0.076	
2	R2-2-B274	1018155.000	1892480.000	709.1	1018155.010	1892479.956	709.099	0.010	-0.044	-0.001	
2	R2-2-B275	1018188.000	1892480.000	709.5	1018188.006	1892480.020	709.439	0.006	0.020	-0.061	
2	R2-2-B276	1018106.500	1892475.500	716.7	1018106.466	1892475.570	716.677	-0.034	0.070	-0.023	
2	R2-2-B277	1018140.000	1892472.000	710.2	1018140.059	1892472.037	710.056	0.059	0.037	-0.144	
2	R2-2-B278	1018155.000	1892472.000	710.2	1018155.040	1892472.043	710.106	0.040	0.043	-0.094	
2	R2-2-B279	1018107.500	1892464.000	715.1	1018107.524	1892463.999	714.970	0.024	-0.001	-0.130	
2	R2-2-B28	1018067.000	1892969.000	712.8	1018067.008	1892969.068	712.615	0.008	0.068	-0.185	
2	R2-2-B280	1018140.000	1892464.000	710.2	1018140.017	1892463.998	710.197	0.017	-0.002	-0.003	
2	R2-2-B281	1018187.000	1892464.000	709.4	1018186.984	1892464.026	709.383	-0.016	0.026	-0.017	
2	R2-2-B282	1018111.500	1892457.000	717	1018111.528	1892457.050	716.872	0.028	0.050	-0.128	
2	R2-2-B283	1018124.000	1892456.000	714.8	1018123.948	1892456.104	711.662	-0.052	0.104	-3.138	Point was surveyed at existing ground surface

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B284	1018140.000	1892454.000	710.4	1018139.994	1892454.062	710.274	-0.006	0.062	-0.126	
2	R2-2-B285	1018155.000	1892454.000	710.4	1018154.989	1892453.961	710.236	-0.011	-0.039	-0.164	
2	R2-2-B286	1018171.000	1892454.000	709.4	1018171.005	1892454.062	709.295	0.005	0.062	-0.105	
2	R2-2-B287	1018202.500	1892446.500	710.3	1018202.508	1892446.438	710.221	0.008	-0.062	-0.079	
2	R2-2-B288	1018092.300	1892444.500	716.3	1018092.220	1892444.530	716.281	-0.080	0.030	-0.019	
2	R2-2-B289	1018156.000	1892444.000	710.4	1018155.999	1892444.025	710.163	-0.001	0.025	-0.237	
2	R2-2-B29	1017987.200	1892967.500	711.3	1017987.155	1892967.469	711.204	-0.045	-0.031	-0.096	
2	R2-2-B290	1018172.000	1892444.000	709.3	1018172.033	1892444.049	709.263	0.033	0.049	-0.037	
2	R2-2-B291	1018132.000	1892435.500	710.2	1018132.095	1892435.548	710.095	0.095	0.048	-0.105	
2	R2-2-B292	1018140.000	1892435.500	710.5	1018140.000	1892435.516	710.400	0.000	0.016	-0.100	
2	R2-2-B293	1018156.000	1892435.500	710.5	1018155.917	1892435.548	710.465	-0.083	0.048	-0.035	
2	R2-2-B294	1018172.000	1892435.500	709.7	1018172.027	1892435.511	709.682	0.027	0.011	-0.018	
2	R2-2-B295	1018105.300	1892435.200	715	1018105.378	1892435.269	714.981	0.078	0.069	-0.019	
2	R2-2-B296	1018203.500	1892430.500	709.6	1018203.557	1892430.494	709.549	0.057	-0.006	-0.051	
2	R2-2-B297	1018124.000	1892429.500	715	1018124.061	1892429.477	714.972	0.061	-0.023	-0.028	
2	R2-2-B298	1018140.000	1892427.000	710.5	1018140.021	1892427.091	710.279	0.021	0.091	-0.221	
2	R2-2-B299	1018108.100	1892418.300	714.3	1018108.023	1892418.319	714.177	-0.077	0.019	-0.123	
2	R2-2-B3	1018074.000	1893027.500	714.2	1018074.042	1893027.542	714.143	0.042	0.042	-0.057	
2	R2-2-B30	1018132.000	1892967.500	712.9	1018131.921	1892967.540	712.811	-0.079	0.040	-0.089	
2	R2-2-B300	1018215.500	1892414.500	709.7	1018215.547	1892414.484	709.639	0.047	-0.016	-0.061	
2	R2-2-B301	1018124.500	1892413.500	717.7	1018124.538	1892413.485	715.500	0.038	-0.015	-2.200	Point was surveyed at existing ground surface
2	R2-2-B302	1018140.000	1892410.000	709.6	1018139.990	1892410.040	709.596	-0.010	0.040	-0.004	
2	R2-2-B303	1018221.000	1892406.500	709.7	1018221.009	1892406.562	709.688	0.009	0.062	-0.012	
2	R2-2-B304	1018128.000	1892401.500	710.6	1018127.974	1892401.456	710.457	-0.026	-0.044	-0.143	
2	R2-2-B305	1018140.000	1892401.500	710.2	1018140.076	1892401.477	710.065	0.076	-0.023	-0.135	
2	R2-2-B306	1018221.000	1892398.000	709.2	1018221.052	1892398.042	709.136	0.052	0.042	-0.064	
2	R2-2-B307	1018112.600	1892396.800	715.1	1018112.680	1892396.802	715.090	0.080	0.002	-0.010	
2	R2-2-B308	1018216.500	1892389.000	709.2	1018216.558	1892388.962	709.104	0.058	-0.038	-0.096	
2	R2-2-B309	1018128.000	1892384.500	714.6	1018128.065	1892384.452	714.547	0.065	-0.048	-0.053	
2	R2-2-B31	1018077.000	1892966.000	714.3	1018077.031	1892966.024	712.831	0.031	0.024	-1.469	Point was surveyed at existing ground surface
2	R2-2-B310	1018140.000	1892384.500	710.2	1018139.985	1892384.465	710.146	-0.015	-0.035	-0.054	
2	R2-2-B311	1018212.000	1892384.500	709.7	1018211.988	1892384.500	709.514	-0.012	0.000	-0.186	
2	R2-2-B312	1018216.500	1892380.500	709.7	1018216.462	1892380.489	709.655	-0.038	-0.011	-0.045	
2	R2-2-B313	1018116.600	1892376.100	714.6	1018116.655	1892376.092	714.435	0.055	-0.008	-0.165	
2	R2-2-B314	1018128.000	1892376.000	714.6	1018127.932	1892375.985	714.525	-0.068	-0.015	-0.075	
2	R2-2-B315	1018140.000	1892376.000	710.2	1018140.024	1892376.033	710.177	0.024	0.033	-0.023	
2	R2-2-B316	1018225.000	1892376.000	712.7	1018225.006	1892375.981	712.131	0.006	-0.019	-0.569	Point was surveyed at existing ground surface

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

12/22/05

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 2 Section R2-2**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B317	1018230.000	1892376.000	712.7	1018229.888	1892375.997	712.528	-0.112	-0.003	-0.172	
2	R2-2-B318	1018141.000	1892367.500	710.2	1018141.040	1892367.479	709.994	0.040	-0.021	-0.206	
2	R2-2-B319	1018156.000	1892367.500	710.2	1018156.001	1892367.509	710.160	0.001	0.009	-0.040	
2	R2-2-B32	1018123.500	1892966.000	712.6	1018123.471	1892966.035	712.547	-0.029	0.035	-0.053	
2	R2-2-B320	1018232.500	1892367.000	712.7	1018232.489	1892367.023	712.606	-0.011	0.023	-0.094	
2	R2-2-B321	1018232.000	1892361.500	712.7	1018231.873	1892361.612	712.687	-0.127	0.112	-0.013	
2	R2-2-B322	1018117.000	1892359.000	714.4	1018116.985	1892358.956	714.302	-0.015	-0.044	-0.098	
2	R2-2-B323	1018129.000	1892359.000	714.4	1018128.964	1892358.936	714.350	-0.036	-0.064	-0.050	
2	R2-2-B324	1018156.000	1892359.000	709.4	1018155.982	1892358.990	709.395	-0.018	-0.010	-0.005	
2	R2-2-B325	1018223.500	1892357.500	712.7	1018223.457	1892357.515	711.644	-0.043	0.015	-1.056	Point was surveyed at existing ground surface
2	R2-2-B326	1018141.000	1892350.500	710	1018140.973	1892350.559	709.908	-0.027	0.059	-0.092	
2	R2-2-B327	1018156.000	1892350.500	710	1018156.041	1892350.461	709.946	0.041	-0.039	-0.054	
2	R2-2-B328	1018172.000	1892350.500	709.6	1018172.084	1892350.466	709.506	0.084	-0.034	-0.094	
2	R2-2-B329	1018188.000	1892350.500	709.1	1018187.966	1892350.432	708.863	-0.034	-0.068	-0.237	
2	R2-2-B33	1018060.000	1892965.900	712.4	1018059.966	1892965.867	712.375	-0.034	-0.033	-0.025	
2	R2-2-B330	1018231.500	1892349.000	710.8	1018231.547	1892349.057	710.754	0.047	0.057	-0.046	
2	R2-2-B331	1018245.000	1892348.500	714.6	1018242.819	1892348.376	714.266	-2.181	-0.124	-0.334	Excavated to plastic barrier, inside boundary pt.
2	R2-2-B332	1018117.400	1892345.400	714.8	1018117.457	1892345.357	714.722	0.057	-0.043	-0.078	
2	R2-2-B333	1018128.000	1892342.000	714.8	1018128.002	1892342.023	714.399	0.002	0.023	-0.401	
2	R2-2-B334	1018140.000	1892342.000	710	1018140.018	1892342.039	709.814	0.018	0.039	-0.186	
2	R2-2-B335	1018172.000	1892342.000	709.6	1018172.051	1892341.979	709.525	0.051	-0.021	-0.075	
2	R2-2-B336	1018188.000	1892342.000	709.1	1018188.106	1892342.010	709.086	0.106	0.010	-0.014	
2	R2-2-B337	1018128.000	1892333.500	714.7	1018127.883	1892333.492	714.599	-0.117	-0.008	-0.101	
2	R2-2-B338	1018132.000	1892333.500	714.7	1018132.078	1892333.405	714.677	0.078	-0.095	-0.023	
2	R2-2-B339	1018148.000	1892333.500	710	1018148.044	1892333.588	709.896	0.044	0.088	-0.104	
2	R2-2-B34	1018111.500	1892964.500	714.3	1018111.520	1892964.491	714.290	0.020	-0.009	-0.010	
2	R2-2-B340	1018156.000	1892333.500	710	1018156.024	1892333.589	709.902	0.024	0.089	-0.098	
2	R2-2-B341	1018118.400	1892328.600	714.7	1018118.318	1892328.533	714.592	-0.082	-0.067	-0.108	
2	R2-2-B342	1018140.000	1892325.000	714.7	1018139.984	1892324.941	712.428	-0.016	-0.059	-2.272	Point was surveyed at existing ground surface
2	R2-2-B343	1018156.000	1892325.000	709.7	1018156.031	1892325.016	709.603	0.031	0.016	-0.097	
2	R2-2-B344	1018172.000	1892325.000	709.7	1018171.993	1892325.029	709.476	-0.007	0.029	-0.224	
2	R2-2-B345	1018188.000	1892325.000	708.6	1018188.025	1892324.930	708.584	0.025	-0.070	-0.016	
2	R2-2-B346	1018246.500	1892317.000	714.7	1018246.464	1892316.994	714.644	-0.036	-0.006	-0.056	
2	R2-2-B347	1018220.000	1892316.500	709.7	1018220.083	1892316.504	709.671	0.083	0.004	-0.029	
2	R2-2-B348	1018234.000	1892316.500	712.8	1018233.990	1892316.416	712.073	-0.010	-0.084	-0.727	Point was surveyed at existing ground surface
2	R2-2-B349	1018119.900	1892309.200	714.9	1018119.938	1892309.198	714.884	0.038	-0.002	-0.016	
2	R2-2-B35	1017996.500	1892964.300	710.6	1017996.493	1892964.295	710.566	-0.007	-0.005	-0.034	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 2 Section R2-2**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B350	1018248.500	1892309.000	714.1	1018248.380	1892308.974	713.795	-0.120	-0.026	-0.305	
2	R2-2-B351	1018140.000	1892308.000	714.9	1018140.005	1892308.016	713.458	0.005	0.016	-1.442	
2	R2-2-B352	1018156.000	1892308.000	709.8	1018156.050	1892308.099	709.787	0.050	0.099	-0.013	
2	R2-2-B353	1018172.000	1892308.000	709.8	1018172.056	1892308.066	709.734	0.056	0.066	-0.066	
2	R2-2-B354	1018188.000	1892308.000	709.5	1018188.024	1892307.997	709.487	0.024	-0.003	-0.013	
2	R2-2-B355	1018220.000	1892308.000	709.7	1018220.080	1892308.063	709.234	0.080	0.063	-0.466	
2	R2-2-B356	1018236.500	1892300.000	708.9	1018236.448	1892300.076	708.899	-0.052	0.076	-0.001	
2	R2-2-B357	1018144.000	1892299.500	711.8	1018144.017	1892299.554	711.585	0.017	0.054	-0.215	
2	R2-2-B358	1018156.000	1892299.500	709.8	1018155.958	1892299.444	709.768	-0.042	-0.056	-0.032	
2	R2-2-B359	1018164.000	1892299.500	709.8	1018163.971	1892299.511	709.710	-0.029	0.011	-0.090	
2	R2-2-B36	1018041.000	1892961.800	712.4	1018044.230	1892960.078	712.183	3.230	-1.722	-0.217	Excavated to culvert edge
2	R2-2-B360	1018180.000	1892299.500	709	1018179.914	1892299.462	708.921	-0.086	-0.038	-0.079	
2	R2-2-B361	1018220.000	1892299.500	708.9	1018220.004	1892299.442	708.885	0.004	-0.058	-0.015	
2	R2-2-B362	1018249.500	1892299.500	713	1018249.514	1892299.411	712.882	0.014	-0.089	-0.118	
2	R2-2-B363	1018187.000	1892299.000	709	1018187.018	1892298.998	708.771	0.018	-0.002	-0.229	
2	R2-2-B364	1018124.200	1892291.000	711.8	1018124.273	1892291.091	711.635	0.073	0.091	-0.165	
2	R2-2-B365	1018144.000	1892291.000	711.8	1018143.978	1892290.980	711.569	-0.022	-0.020	-0.231	
2	R2-2-B366	1018172.000	1892291.000	709	1018171.924	1892290.979	708.976	-0.076	-0.021	-0.024	
2	R2-2-B367	1018204.000	1892282.500	708.1	1018204.035	1892282.502	708.090	0.035	0.002	-0.010	
2	R2-2-B368	1018187.000	1892282.000	709.6	1018187.022	1892281.995	709.558	0.022	-0.005	-0.042	
2	R2-2-B369	1018257.500	1892281.500	714.7	1018259.048	1892281.424	714.638	1.548	-0.076	-0.062	Excavated to plastic barrier, outside boundary pt.
2	R2-2-B37	1018048.000	1892958.900	712.4	1018047.885	1892958.892	712.167	-0.115	-0.008	-0.233	
2	R2-2-B370	1018128.300	1892274.000	714	1018128.285	1892273.958	713.892	-0.015	-0.042	-0.108	
2	R2-2-B371	1018144.000	1892274.000	714	1018143.999	1892274.057	713.912	-0.001	0.057	-0.088	
2	R2-2-B372	1018172.000	1892274.000	709.6	1018172.013	1892273.998	709.482	0.013	-0.002	-0.118	
2	R2-2-B373	1018188.000	1892274.000	709.6	1018188.004	1892273.959	709.455	0.004	-0.041	-0.145	
2	R2-2-B374	1018204.000	1892274.000	708.1	1018204.018	1892273.978	708.053	0.018	-0.022	-0.047	
2	R2-2-B375	1018256.000	1892273.000	713.8	1018261.235	1892272.940	713.665	5.235	-0.060	-0.135	Excavated to plastic barrier, outside boundary pt.
2	R2-2-B376	1018228.000	1892265.500	708.5	1018228.067	1892265.438	708.321	0.067	-0.062	-0.179	
2	R2-2-B377	1018253.000	1892265.500	713.8	1018253.042	1892265.505	713.715	0.042	0.005	-0.085	
2	R2-2-B378	1018166.000	1892263.500	710.1	1018166.062	1892263.424	710.067	0.062	-0.076	-0.033	
2	R2-2-B379	1018208.000	1892259.000	708.8	1018208.000	1892259.037	708.727	0.000	0.037	-0.073	
2	R2-2-B38	1018084.000	1892958.500	714.3	1018084.083	1892958.423	712.634	0.083	-0.077	-1.666	Point was surveyed at existing ground surface
2	R2-2-B380	1018192.000	1892256.500	708.8	1018191.997	1892256.571	708.682	-0.003	0.071	-0.118	
2	R2-2-B381	1018157.000	1892254.800	710.7	1018157.050	1892254.787	710.462	0.050	-0.013	-0.238	
2	R2-2-B382	1018133.200	1892253.200	713.6	1018133.289	1892253.237	713.595	0.089	0.037	-0.005	
2	R2-2-B383	1018145.500	1892253.000	710.7	1018145.497	1892252.918	710.659	-0.003	-0.082	-0.041	

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Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B384	1018198.000	1892249.000	708.9	1018198.059	1892248.937	708.894	0.059	-0.063	-0.006	
2	R2-2-B385	1018206.000	1892249.000	709.5	1018206.011	1892248.984	709.494	0.011	-0.016	-0.006	
2	R2-2-B386	1018145.500	1892244.500	713.9	1018145.458	1892244.550	713.893	-0.042	0.050	-0.007	
2	R2-2-B387	1018135.200	1892240.000	713.9	1018135.202	1892240.024	713.787	0.002	0.024	-0.113	
2	R2-2-B388	1018156.000	1892240.000	710.7	1018155.992	1892240.107	710.656	-0.008	0.107	-0.044	
2	R2-2-B389	1018220.000	1892240.000	709.5	1018220.075	1892240.027	709.342	0.075	0.027	-0.158	
2	R2-2-B39	1018092.000	1892958.500	714.3	1018091.880	1892958.674	713.837	-0.120	0.174	-0.463	Point was surveyed at existing ground surface
2	R2-2-B390	1018148.000	1892231.500	712.2	1018148.024	1892231.465	712.189	0.024	-0.035	-0.011	
2	R2-2-B391	1018156.000	1892231.500	712.2	1018156.040	1892231.475	712.002	0.040	-0.025	-0.198	
2	R2-2-B392	1018137.800	1892223.000	712.2	1018137.804	1892223.020	712.137	0.004	0.020	-0.063	
2	R2-2-B393	1018236.000	1892223.000	710.3	1018235.918	1892222.993	710.126	-0.082	-0.007	-0.174	
2	R2-2-B394	1018169.000	1892215.000	710.7	1018168.974	1892215.031	710.591	-0.026	0.031	-0.109	
2	R2-2-B395	1018220.000	1892214.500	709	1018220.008	1892214.451	708.905	0.008	-0.049	-0.095	
2	R2-2-B396	1018236.000	1892214.500	710.3	1018235.968	1892214.436	710.280	-0.032	-0.064	-0.020	
2	R2-2-B397	1018159.000	1892211.000	711.6	1018159.022	1892210.983	711.553	0.022	-0.017	-0.047	
2	R2-2-B398	1018140.500	1892206.000	712.8	1018140.578	1892205.973	712.763	0.078	-0.027	-0.037	
2	R2-2-B399	1018156.000	1892206.000	712.8	1018155.940	1892206.015	712.598	-0.060	0.015	-0.202	
2	R2-2-B4	1018094.000	1893023.600	714.1	1018094.051	1893023.573	713.838	0.051	-0.027	-0.262	
2	R2-2-B40	1018135.500	1892958.500	712.9	1018135.514	1892958.552	712.876	0.014	0.052	-0.024	
2	R2-2-B400	1018172.000	1892206.000	710.4	1018171.956	1892206.033	710.313	-0.044	0.033	-0.087	
2	R2-2-B401	1018220.000	1892206.000	709	1018219.967	1892205.958	708.978	-0.033	-0.042	-0.022	
2	R2-2-B402	1018220.000	1892198.000	710.3	1018219.990	1892197.954	710.294	-0.010	-0.046	-0.006	
2	R2-2-B403	1018236.000	1892198.000	710.3	1018236.086	1892198.087	710.113	0.086	0.087	-0.187	
2	R2-2-B404	1018172.500	1892191.500	710	1018172.421	1892191.487	709.803	-0.079	-0.013	-0.197	
2	R2-2-B405	1018143.000	1892190.000	713.1	1018143.025	1892189.929	713.085	0.025	-0.071	-0.015	
2	R2-2-B406	1018156.000	1892190.000	712.5	1018155.960	1892190.039	712.345	-0.040	0.039	-0.155	
2	R2-2-B407	1018236.000	1892190.000	710.3	1018235.997	1892190.050	710.218	-0.003	0.050	-0.082	
2	R2-2-B408	1018162.000	1892187.000	712.5	1018162.103	1892186.983	712.295	0.103	-0.017	-0.205	
2	R2-2-B409	1018164.000	1892182.000	712.5	1018163.972	1892181.921	712.135	-0.028	-0.079	-0.365	Point was surveyed at existing ground surface
2	R2-2-B41	1018058.500	1892958.400	712.4	1018058.417	1892958.499	712.284	-0.083	0.099	-0.116	
2	R2-2-B410	1018172.000	1892182.000	710.5	1018171.972	1892181.992	710.448	-0.028	-0.008	-0.052	
2	R2-2-B411	1018204.000	1892182.000	709.5	1018203.962	1892181.925	709.415	-0.038	-0.075	-0.085	
2	R2-2-B412	1018220.000	1892182.000	710.6	1018219.967	1892182.039	710.357	-0.033	0.039	-0.243	
2	R2-2-B413	1018145.600	1892174.100	713.5	1018145.691	1892174.107	713.472	0.091	0.007	-0.028	
2	R2-2-B414	1018204.000	1892174.000	709.5	1018203.922	1892174.008	709.441	-0.078	0.008	-0.059	
2	R2-2-B415	1018220.000	1892174.000	710.6	1018219.922	1892173.951	710.413	-0.078	-0.049	-0.187	
2	R2-2-B416	1018236.000	1892174.000	710.6	1018235.993	1892174.048	710.557	-0.007	0.048	-0.043	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
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KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B417	1018204.000	1892166.000	709.4	1018204.010	1892166.084	709.364	0.010	0.084	-0.036	
2	R2-2-B418	1018220.000	1892166.000	709.4	1018220.057	1892165.994	709.390	0.057	-0.006	-0.010	
2	R2-2-B419	1018236.000	1892156.000	709.6	1018236.027	1892156.054	709.544	0.027	0.054	-0.056	
2	R2-2-B42	1018166.500	1892957.000	715.1	1018166.523	1892957.070	714.937	0.023	0.070	-0.163	
2	R2-2-B420	1018251.000	1892149.500	710.6	1018250.942	1892149.559	710.396	-0.058	0.059	-0.204	
2	R2-2-B421	1018220.000	1892149.000	709.9	1018219.982	1892149.009	709.853	-0.018	0.009	-0.047	
2	R2-2-B422	1018228.000	1892149.000	709.6	1018228.030	1892149.074	709.596	0.030	0.074	-0.004	
2	R2-2-B423	1018244.000	1892149.000	710.6	1018244.042	1892148.974	710.533	0.042	-0.026	-0.067	
2	R2-2-B424	1018251.000	1892142.500	710.6	1018250.957	1892142.393	710.358	-0.043	-0.107	-0.242	
2	R2-2-B425	1018151.000	1892142.300	714.4	1018151.154	1892142.362	714.335	0.154	0.062	-0.065	
2	R2-2-B426	1018220.000	1892142.000	709.9	1018219.963	1892141.977	709.866	-0.037	-0.023	-0.034	
2	R2-2-B427	1018236.000	1892142.000	710.6	1018236.097	1892141.989	710.455	0.097	-0.011	-0.145	
2	R2-2-B428	1018251.000	1892134.500	710.6	1018250.922	1892134.501	710.522	-0.078	0.001	-0.078	
2	R2-2-B429	1018220.000	1892134.000	710	1018220.090	1892134.025	709.958	0.090	0.025	-0.042	
2	R2-2-B43	1018115.000	1892955.000	712.6	1018115.016	1892954.924	712.456	0.016	-0.076	-0.144	
2	R2-2-B430	1018230.500	1892134.000	709.8	1018230.494	1892134.054	709.641	-0.006	0.054	-0.159	
2	R2-2-B431	1018244.000	1892134.000	710.6	1018244.010	1892134.065	710.494	0.010	0.065	-0.106	
2	R2-2-B432	1018238.500	1892126.000	709.8	1018238.425	1892125.941	709.770	-0.075	-0.059	-0.030	
2	R2-2-B433	1018252.000	1892110.000	710.5	1018252.028	1892110.054	710.468	0.028	0.054	-0.032	
2	R2-2-B434	1018164.000	1892102.000	712	1018164.005	1892102.077	711.924	0.005	0.077	-0.076	
2	R2-2-B435	1018176.000	1892102.000	710.5	1018175.997	1892102.048	710.492	-0.003	0.048	-0.008	
2	R2-2-B436	1018249.500	1892100.500	710.5	1018249.398	1892100.568	710.253	-0.102	0.068	-0.247	
2	R2-2-B437	1018164.000	1892094.000	713.4	1018164.022	1892093.968	713.247	0.022	-0.032	-0.153	
2	R2-2-B438	1018176.000	1892094.000	710.5	1018176.053	1892094.027	710.312	0.053	0.027	-0.188	
2	R2-2-B439	1018247.000	1892090.500	709.4	1018246.970	1892090.514	709.351	-0.030	0.014	-0.049	
2	R2-2-B44	1018028.400	1892953.600	709.7	1018027.554	1892950.615	709.556	-0.846	-2.985	-0.144	Excavated to culvert edge
2	R2-2-B440	1018174.000	1892090.000	711.3	1018173.921	1892090.046	711.228	-0.079	0.046	-0.072	
2	R2-2-B441	1018168.000	1892086.000	711.3	1018168.051	1892086.030	711.204	0.051	0.030	-0.096	
2	R2-2-B442	1018204.000	1892086.000	709.9	1018204.055	1892085.959	709.754	0.055	-0.041	-0.146	
2	R2-2-B443	1018228.000	1892086.000	709.5	1018228.052	1892086.011	709.463	0.052	0.011	-0.037	
2	R2-2-B444	1018159.300	1892085.600	713.8	1018159.443	1892085.685	713.307	0.143	0.085	-0.493	
2	R2-2-B445	1018186.000	1892082.000	709.6	1018186.036	1892082.086	709.584	0.036	0.086	-0.016	
2	R2-2-B446	1018160.800	1892078.000	713.8	1018156.588	1892077.920	713.716	-4.212	-0.080	-0.084	Excavated to plastic barrier, past bound. pt.
2	R2-2-B447	1018220.000	1892078.000	709.9	1018220.036	1892077.994	709.720	0.036	-0.006	-0.180	
2	R2-2-B448	1018236.000	1892078.000	710.8	1018236.079	1892078.005	710.681	0.079	0.005	-0.119	
2	R2-2-B449	1018252.000	1892078.000	710.8	1018251.993	1892077.959	710.744	-0.007	-0.041	-0.056	
2	R2-2-B45	1017993.800	1892953.200	710.9	1017993.737	1892953.160	710.796	-0.063	-0.040	-0.104	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B450	1018203.500	1892074.000	709.9	1018203.492	1892073.976	709.876	-0.008	-0.024	-0.024	
2	R2-2-B451	1018212.000	1892070.000	709.9	1018211.924	1892069.957	709.896	-0.076	-0.043	-0.004	
2	R2-2-B452	1018252.000	1892070.000	710.8	1018252.038	1892069.985	710.689	0.038	-0.015	-0.111	
2	R2-2-B453	1018244.000	1892069.000	710.8	1018244.013	1892069.016	710.566	0.013	0.016	-0.234	
2	R2-2-B454	1018174.500	1892067.000	713.8	1018174.579	1892066.910	713.599	0.079	-0.090	-0.201	
2	R2-2-B455	1018188.500	1892067.000	710.9	1018188.456	1892067.058	710.732	-0.044	0.058	-0.168	
2	R2-2-B456	1018163.000	1892062.000	713.8	1018158.969	1892061.978	713.647	-4.031	-0.022	-0.153	Excavated to plastic barrier, past bound. pt.
2	R2-2-B457	1018173.000	1892062.000	713.8	1018173.010	1892061.960	713.606	0.010	-0.040	-0.194	
2	R2-2-B458	1018220.000	1892062.000	710.4	1018220.058	1892061.965	710.384	0.058	-0.035	-0.016	
2	R2-2-B459	1018236.000	1892061.000	710.4	1018235.974	1892061.053	710.361	-0.026	0.053	-0.039	
2	R2-2-B46	1018147.000	1892953.000	712.5	1018147.151	1892952.961	712.472	0.151	-0.039	-0.028	
2	R2-2-B460	1018179.000	1892054.000	714.8	1018178.999	1892054.010	714.741	-0.001	0.010	-0.059	
2	R2-2-B461	1018190.500	1892053.000	714.8	1018190.484	1892053.011	711.961	-0.016	0.011	-2.839	Point was surveyed at existing ground surface
2	R2-2-B462	1018220.000	1892046.000	709.9	1018219.996	1892045.949	709.837	-0.004	-0.051	-0.063	
2	R2-2-B463	1018236.000	1892046.000	709.9	1018236.006	1892045.934	709.699	0.006	-0.066	-0.201	
2	R2-2-B464	1018190.500	1892045.000	714.8	1018190.445	1892045.071	713.665	-0.055	0.071	-1.135	Point was surveyed at existing ground surface
2	R2-2-B465	1018204.000	1892042.000	711.3	1018203.937	1892041.920	711.232	-0.063	-0.080	-0.068	
2	R2-2-B466	1018220.000	1892037.000	711.3	1018220.064	1892036.912	711.004	0.064	-0.088	-0.296	
2	R2-2-B467	1018208.000	1892034.000	711.3	1018208.094	1892034.054	711.152	0.094	0.054	-0.148	
2	R2-2-B468	1018188.100	1892029.900	715.1	1018188.148	1892029.845	714.902	0.048	-0.055	-0.198	
2	R2-2-B469	1018174.000	1892029.300	715.1	1018172.656	1892029.165	715.091	-1.344	-0.135	-0.009	Excavated to plastic barrier, past bound. pt.
2	R2-2-B47	1018134.500	1892950.500	712.9	1018134.546	1892950.513	712.878	0.046	0.013	-0.022	
2	R2-2-B470	1018187.900	1892022.300	715.1	1018187.819	1892022.322	715.032	-0.081	0.022	-0.068	
2	R2-2-B471	1018200.200	1892022.300	714.8	1018200.164	1892022.445	714.655	-0.036	0.145	-0.145	
2	R2-2-B472	1018204.000	1892014.000	714.8	1018203.816	1892013.987	714.516	-0.184	-0.013	-0.284	
2	R2-2-B473	1018177.800	1892013.600	717.2	1018177.684	1892013.597	716.809	-0.116	-0.003	-0.391	
2	R2-2-B474	1018179.100	1892000.600	717.2	1018179.158	1892000.524	716.748	0.058	-0.076	-0.452	
2	R2-2-B475	1018201.400	1892000.600	716.7	1018201.368	1892000.488	716.381	-0.032	-0.112	-0.319	
2	R2-2-B48	1017989.500	1892949.500	710.9	1017989.431	1892949.445	710.860	-0.069	-0.055	-0.040	
2	R2-2-B49	1018036.000	1892949.000	709.7	1018036.081	1892948.982	708.806	0.081	-0.018	-0.894	Point was surveyed at existing ground surface
2	R2-2-B5	1018069.900	1893019.400	713.4	1018069.917	1893019.494	713.398	0.017	0.094	-0.002	
2	R2-2-B50	1018009.200	1892944.700	710	1018009.204	1892944.751	709.939	0.004	0.051	-0.061	
2	R2-2-B51	1018015.600	1892944.500	710	1018015.554	1892944.568	709.760	-0.046	0.068	-0.240	
2	R2-2-B52	1018049.500	1892942.000	704.9	1018049.476	1892941.987	704.836	-0.024	-0.013	-0.064	
2	R2-2-B53	1017980.700	1892941.900	712.8	1017980.732	1892941.911	712.615	0.032	0.011	-0.185	
2	R2-2-B54	1018068.000	1892941.500	710.6	1018068.063	1892941.541	710.362	0.063	0.041	-0.238	
2	R2-2-B55	1018085.000	1892941.500	711	1018085.004	1892941.492	710.961	0.004	-0.008	-0.039	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B56	1018099.000	1892941.500	710.5	1018098.990	1892941.524	710.383	-0.010	0.024	-0.117	
2	R2-2-B57	1018023.500	1892941.000	709.7	1018023.469	1892940.944	709.598	-0.031	-0.056	-0.102	
2	R2-2-B58	1018032.500	1892941.000	709.7	1018032.472	1892940.931	708.596	-0.028	-0.069	-1.104	Point was surveyed at existing ground surface
2	R2-2-B59	1018122.000	1892941.000	712.7	1018121.927	1892940.973	712.641	-0.073	-0.027	-0.059	
2	R2-2-B6	1018062.700	1893015.400	712.4	1018062.840	1893015.420	712.326	0.140	0.020	-0.074	
2	R2-2-B60	1018002.700	1892940.500	710.9	1018002.779	1892940.608	710.799	0.079	0.108	-0.101	
2	R2-2-B61	1018106.500	1892937.000	711.2	1018106.542	1892937.014	711.123	0.042	0.014	-0.077	
2	R2-2-B62	1018113.000	1892937.000	711.2	1018112.955	1892937.024	711.130	-0.045	0.024	-0.070	
2	R2-2-B63	1017998.400	1892936.800	712.8	1017998.407	1892936.850	712.560	0.007	0.050	-0.240	
2	R2-2-B64	1018046.000	1892934.000	704.9	1018046.083	1892934.013	704.888	0.083	0.013	-0.012	
2	R2-2-B65	1018118.000	1892933.000	711.2	1018117.966	1892933.014	711.049	-0.034	0.014	-0.151	
2	R2-2-B66	1018166.500	1892932.500	714.2	1018166.463	1892932.524	714.193	-0.037	0.024	-0.007	
2	R2-2-B67	1018130.000	1892927.500	713.2	1018129.975	1892927.449	713.066	-0.025	-0.051	-0.134	
2	R2-2-B68	1018006.600	1892926.700	712.4	1018006.543	1892926.678	712.305	-0.057	-0.022	-0.095	
2	R2-2-B69	1018019.000	1892926.500	709.8	1018018.905	1892926.475	709.674	-0.095	-0.025	-0.126	
2	R2-2-B7	1018100.000	1893011.500	714	1018099.975	1893011.492	713.877	-0.025	-0.008	-0.123	
2	R2-2-B70	1018045.500	1892926.500	704.9	1018045.552	1892926.563	704.884	0.052	0.063	-0.016	
2	R2-2-B71	1018053.500	1892926.500	704.9	1018053.396	1892926.496	704.859	-0.104	-0.004	-0.041	
2	R2-2-B72	1018070.000	1892926.500	710.6	1018069.958	1892926.493	710.496	-0.042	-0.007	-0.104	
2	R2-2-B73	1018078.500	1892926.500	710.6	1018078.541	1892926.506	710.521	0.041	0.006	-0.079	
2	R2-2-B74	1017991.200	1892921.300	712.4	1017991.206	1892921.263	712.262	0.006	-0.037	-0.138	
2	R2-2-B75	1018028.000	1892919.000	709.8	1018028.010	1892918.997	709.679	0.010	-0.003	-0.121	
2	R2-2-B76	1018078.500	1892919.000	710.6	1018078.583	1892919.109	710.580	0.083	0.109	-0.020	
2	R2-2-B77	1018115.000	1892919.000	710.9	1018115.011	1892918.954	710.849	0.011	-0.046	-0.051	
2	R2-2-B78	1018172.000	1892917.500	715.8	1018172.069	1892917.503	715.718	0.069	0.003	-0.082	
2	R2-2-B79	1018127.000	1892916.000	713.6	1018127.058	1892916.019	713.579	0.058	0.019	-0.021	
2	R2-2-B8	1018055.700	1893011.400	712.4	1018055.745	1893011.400	712.325	0.045	0.000	-0.075	
2	R2-2-B80	1018035.500	1892911.500	709.3	1018035.514	1892911.493	709.201	0.014	-0.007	-0.099	
2	R2-2-B81	1018051.500	1892911.500	709.9	1018051.502	1892911.480	708.654	0.002	-0.020	-1.246	Point was surveyed at existing ground surface
2	R2-2-B82	1018076.500	1892911.500	710.6	1018076.477	1892911.410	710.526	-0.023	-0.090	-0.074	
2	R2-2-B83	1018085.000	1892911.500	710.6	1018085.058	1892911.575	710.563	0.058	0.075	-0.037	
2	R2-2-B84	1018058.000	1892904.000	709.9	1018058.054	1892903.940	709.805	0.054	-0.060	-0.095	
2	R2-2-B85	1018091.000	1892904.000	710.6	1018091.023	1892904.072	710.454	0.023	0.072	-0.146	
2	R2-2-B86	1018107.500	1892904.000	710.6	1018107.521	1892904.017	710.486	0.021	0.017	-0.114	
2	R2-2-B87	1017984.900	1892902.700	712.2	1017984.987	1892902.725	711.982	0.087	0.025	-0.218	
2	R2-2-B88	1018175.000	1892899.500	714.1	1018174.963	1892899.468	713.964	-0.037	-0.032	-0.136	
2	R2-2-B89	1018127.500	1892899.000	713.3	1018127.575	1892899.038	712.447	0.075	0.038	-0.853	Point was surveyed at existing ground surface

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
 Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
 Δ Elevation > 0.0 ft Red

12/22/05

Survey Instrument: Trimble 5800 / Trimble S6  
 Environmental Scientist: A. Ruta/J. Krane/D. Steman  
 Geologist: Dan Ryan

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
 Bottom of Targeted Material  
 Reach 2 Section R2-2

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-2-B9	1018077.400	1893009.400	713.4	1018077.370	1893009.385	713.318	-0.030	-0.015	-0.082	
2	R2-2-B90	1018091.000	1892897.000	710.6	1018091.081	1892897.045	710.509	0.081	0.045	-0.091	
2	R2-2-B91	1018099.000	1892897.000	710.6	1018099.058	1892897.044	710.545	0.058	0.044	-0.055	
2	R2-2-B92	1018116.000	1892897.000	711.3	1018115.950	1892897.021	711.216	-0.050	0.021	-0.084	
2	R2-2-B93	1018107.500	1892890.000	711.3	1018107.510	1892890.120	711.068	0.010	0.120	-0.232	
2	R2-2-B94	1018057.000	1892889.000	708.4	1018056.939	1892889.000	708.379	-0.061	0.000	-0.021	
2	R2-2-B95	1018135.500	1892884.500	714.4	1018135.595	1892884.596	713.931	0.095	0.096	-0.469	Point was surveyed at existing ground surface
2	R2-2-B96	1018179.000	1892883.900	714.7	1018178.970	1892883.778	714.636	-0.030	-0.122	-0.064	
2	R2-2-B97	1017988.200	1892883.200	714.7	1017988.121	1892883.202	714.515	-0.079	0.002	-0.185	
2	R2-2-B98	1018124.000	1892882.500	710	1018123.910	1892882.504	709.983	-0.090	0.004	-0.017	
2	R2-2-B99	1018137.000	1892876.500	714.4	1018137.161	1892876.494	713.077	0.161	-0.006	-1.323	Point was surveyed at existing ground surface
2	R2-2-V6b	1018166.500	1892138.500	712.6	1018166.480	1892138.519	712.059	-0.020	0.019	-0.541	Point was surveyed at existing ground surface
2	R2-2-V7b	1018168.000	1892110.000	712	1018168.018	1892110.024	711.969	0.018	0.024	-0.031	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red



KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 2 Section R2-3

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-3-1853b	1018226.000	1892419.000	713.9	1018225.971	1892419.059	713.420	-0.029	0.059	-0.480	
2	R2-3-B1	1018224.500	1892426.500	713.9	1018224.382	1892426.581	713.333	-0.118	0.081	-0.567	
2	R2-3-B2	1018222.500	1892419.000	713.9	1018222.521	1892419.011	713.445	0.021	0.011	-0.455	
2	R2-3-B3	1018226.700	1892419.000	713.9	1018226.647	1892419.052	713.501	-0.053	0.052	-0.399	
2	R2-3-B4	1018228.500	1892411.000	713.9	1018228.441	1892410.930	713.741	-0.059	-0.070	-0.159	

Δ Elevation &lt; -0.25 ft Blue

Δ Easting/Northing &lt; or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green

Δ Easting/Northing &gt; 0.2 ft Blue

Δ Elevation &gt; 0.0 ft Red

**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 2 Section R2-4**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-4-1909b	1018270.000	1892258.000	714.3	1018270.034	1892257.976	714.058	0.034	-0.024	-0.242	
2	R2-4-1910b	1018254.000	1892245.000	714.4	1018253.961	1892244.944	714.062	-0.039	-0.056	-0.338	
2	R2-4-1911b	1018270.000	1892245.000	715.2	1018270.060	1892245.048	715.194	0.060	0.048	-0.006	
2	R2-4-1912b	1018258.000	1892229.000	714.8	1018258.037	1892229.030	714.795	0.037	0.030	-0.005	
2	R2-4-1913b	1018274.000	1892229.000	715.5	1018273.955	1892229.023	715.403	-0.045	0.023	-0.097	
2	R2-4-1915b	1018274.000	1892195.000	714.9	1018274.057	1892195.014	714.895	0.057	0.014	-0.005	
2	R2-4-1920b	1018283.000	1892207.000	716.1	1018283.020	1892207.021	715.868	0.020	0.021	-0.232	
2	R2-4-743b	1018273.000	1892207.000	715.4	1018272.968	1892207.054	715.366	-0.032	0.054	-0.034	
2	R2-4-B1	1018266.600	1892266.800	714.3	1018266.492	1892266.762	714.215	-0.108	-0.038	-0.085	
2	R2-4-B10	1018266.000	1892195.000	714.9	1018265.999	1892195.064	714.803	-0.001	0.064	-0.097	
2	R2-4-B11	1018282.000	1892195.000	714.9	1018282.012	1892194.974	714.863	0.012	-0.026	-0.037	
2	R2-4-B12	1018267.000	1892185.500	714.9	1018266.986	1892185.510	714.427	-0.014	0.010	-0.473	
2	R2-4-B13	1018283.500	1892185.000	714.9	1018283.442	1892185.014	714.749	-0.058	0.014	-0.151	
2	R2-4-B2	1018262.000	1892258.000	714.3	1018261.998	1892257.884	713.949	-0.002	-0.116	-0.351	
2	R2-4-B3	1018262.000	1892251.500	714.4	1018262.018	1892251.615	714.379	0.018	0.115	-0.021	
2	R2-4-B4	1018241.000	1892251.000	714.4	1018240.974	1892250.985	711.894	-0.026	-0.015	-2.506	Point was surveyed at existing ground surface
2	R2-4-B5	1018241.000	1892242.500	714.4	1018240.966	1892242.544	711.928	-0.034	0.044	-2.472	Point was surveyed at existing ground surface
2	R2-4-B6	1018257.000	1892218.000	714.8	1018257.044	1892217.976	714.622	0.044	-0.024	-0.178	
2	R2-4-B7	1018264.500	1892207.000	715.4	1018264.531	1892206.987	715.342	0.031	-0.013	-0.058	
2	R2-4-B8	1018286.200	1892206.600	716.1	1018286.270	1892206.630	715.936	0.070	0.030	-0.164	
2	R2-4-B9	1018288.000	1892201.000	716.1	1018287.988	1892200.933	715.751	-0.012	-0.067	-0.349	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

Δ Elevation > 0.0 ft Red

**KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS**  
**Bottom of Targeted Material**  
**Reach 2 Section R2-5**

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-5-1937b	1018274.000	1892124.000	715.1	1018274.067	1892124.011	715.006	0.067	0.011	-0.094	
2	R2-5-1938b	1018290.000	1892124.000	715	1018290.039	1892124.073	714.846	0.039	0.073	-0.154	
2	R2-5-1942b	1018266.000	1892088.000	711.7	1018266.038	1892088.081	711.522	0.038	0.081	-0.178	
2	R2-5-1943b	1018283.000	1892088.000	714.2	1018283.021	1892087.992	714.147	0.021	-0.008	-0.053	
2	R2-5-1947b	1018269.000	1892059.000	711.6	1018268.874	1892058.942	711.266	-0.126	-0.058	-0.334	
2	R2-5-1963b	1018270.000	1892029.000	710.2	1018270.047	1892028.995	710.106	0.047	-0.005	-0.094	
2	R2-5-1964b	1018287.000	1892029.000	712	1018286.938	1892028.950	711.991	-0.062	-0.050	-0.009	
2	R2-5-1965b	1018303.000	1892029.000	711.9	1018303.006	1892029.036	711.875	0.006	0.036	-0.025	
2	R2-5-2434b	1018260.000	1892030.000	709.9	1018260.051	1892030.000	709.822	0.051	0.000	-0.078	
2	R2-5-2435b	1018260.000	1892046.000	709.5	1018260.000	1892045.942	709.385	0.000	-0.058	-0.115	
2	R2-5-2499b	1018276.000	1892014.000	710.8	1018276.025	1892014.074	710.721	0.025	0.074	-0.079	
2	R2-5-2565b	1018298.000	1891990.000	710.5	1018297.959	1891989.904	710.435	-0.041	-0.096	-0.065	
2	R2-5-2572b	1018307.000	1891990.000	711.4	1018307.000	1891990.056	711.282	0.000	0.056	-0.118	
2	R2-5-715b	1018287.000	1892013.000	712.3	1018287.020	1892012.974	712.270	0.020	-0.026	-0.030	
2	R2-5-716b	1018304.000	1892013.000	712.1	1018303.945	1892012.999	712.033	-0.055	-0.001	-0.067	
2	R2-5-724b	1018279.000	1892044.000	712.3	1018278.927	1892043.994	712.248	-0.073	-0.006	-0.052	
2	R2-5-725b	1018295.000	1892044.000	713	1018294.968	1892043.953	712.607	-0.032	-0.047	-0.393	
2	R2-5-726b	1018312.000	1892044.000	713.4	1018312.001	1892044.004	713.313	0.001	0.004	-0.087	
2	R2-5-729b	1018275.000	1892074.000	712.8	1018274.924	1892073.960	712.606	-0.076	-0.040	-0.194	
2	R2-5-730b	1018291.000	1892074.000	714	1018291.016	1892073.949	713.600	0.016	-0.051	-0.400	
2	R2-5-733b	1018262.000	1892104.000	711.4	1018262.076	1892104.135	711.155	0.076	0.135	-0.245	
2	R2-5-734b	1018279.000	1892104.000	714.6	1018278.945	1892104.019	714.483	-0.055	0.019	-0.117	
2	R2-5-735b	1018296.000	1892104.000	714.9	1018296.059	1892103.963	714.842	0.059	-0.037	-0.058	
2	R2-5-738b	1018275.000	1892143.000	715.2	1018274.959	1892143.077	715.083	-0.041	0.077	-0.117	
2	R2-5-739b	1018292.000	1892143.000	715.5	1018292.039	1892142.992	715.471	0.039	-0.008	-0.029	
2	R2-5-B1	1018268.000	1892150.500	715.2	1018267.987	1892150.437	715.146	-0.013	-0.063	-0.054	
2	R2-5-B10	1018258.500	1892097.500	711.4	1018258.518	1892097.515	711.251	0.018	0.015	-0.149	
2	R2-5-B11	1018260.500	1892089.500	711.7	1018260.470	1892089.529	711.619	-0.030	0.029	-0.081	
2	R2-5-B12	1018291.000	1892088.000	714.2	1018291.020	1892087.981	714.066	0.020	-0.019	-0.134	
2	R2-5-B13	1018267.500	1892076.000	712.8	1018267.599	1892076.029	712.587	0.099	0.029	-0.213	
2	R2-5-B14	1018295.000	1892074.000	714	1018295.018	1892073.966	713.815	0.018	-0.034	-0.185	
2	R2-5-B15	1018280.500	1892066.500	712.8	1018280.516	1892066.428	712.684	0.016	-0.072	-0.116	
2	R2-5-B16	1018296.500	1892066.500	714	1018296.523	1892066.540	713.939	0.023	0.040	-0.061	
2	R2-5-B17	1018264.500	1892060.500	711.6	1018264.500	1892060.488	711.199	0.000	-0.012	-0.401	
2	R2-5-B18	1018277.500	1892059.000	711.6	1018277.482	1892059.046	711.376	-0.018	0.046	-0.224	
2	R2-5-B19	1018282.500	1892051.500	712.3	1018282.353	1892051.541	712.276	-0.147	0.041	-0.024	
2	R2-5-B2	1018293.000	1892150.500	715.5	1018292.942	1892150.450	715.490	-0.058	-0.050	-0.010	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green

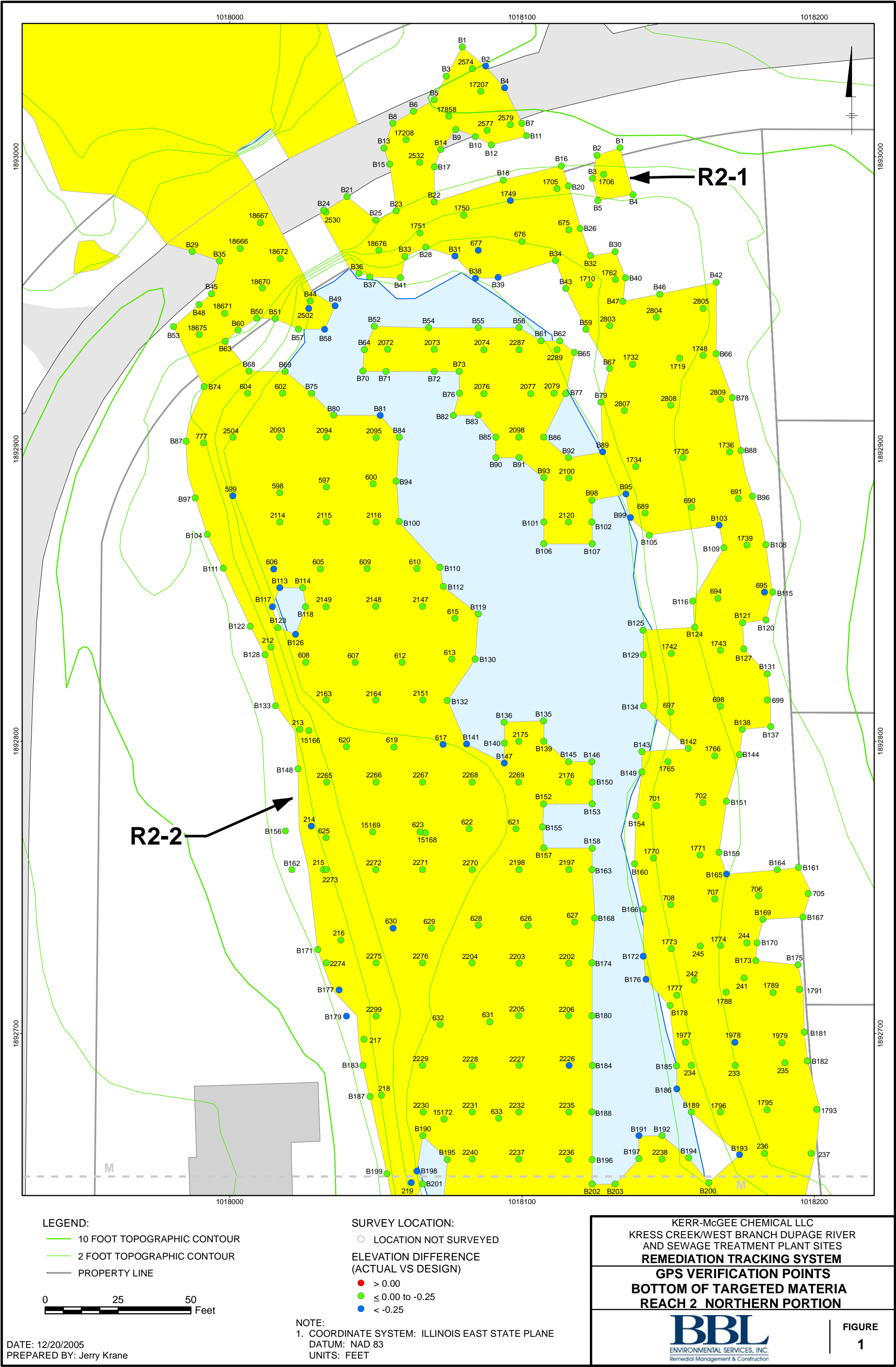
Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue

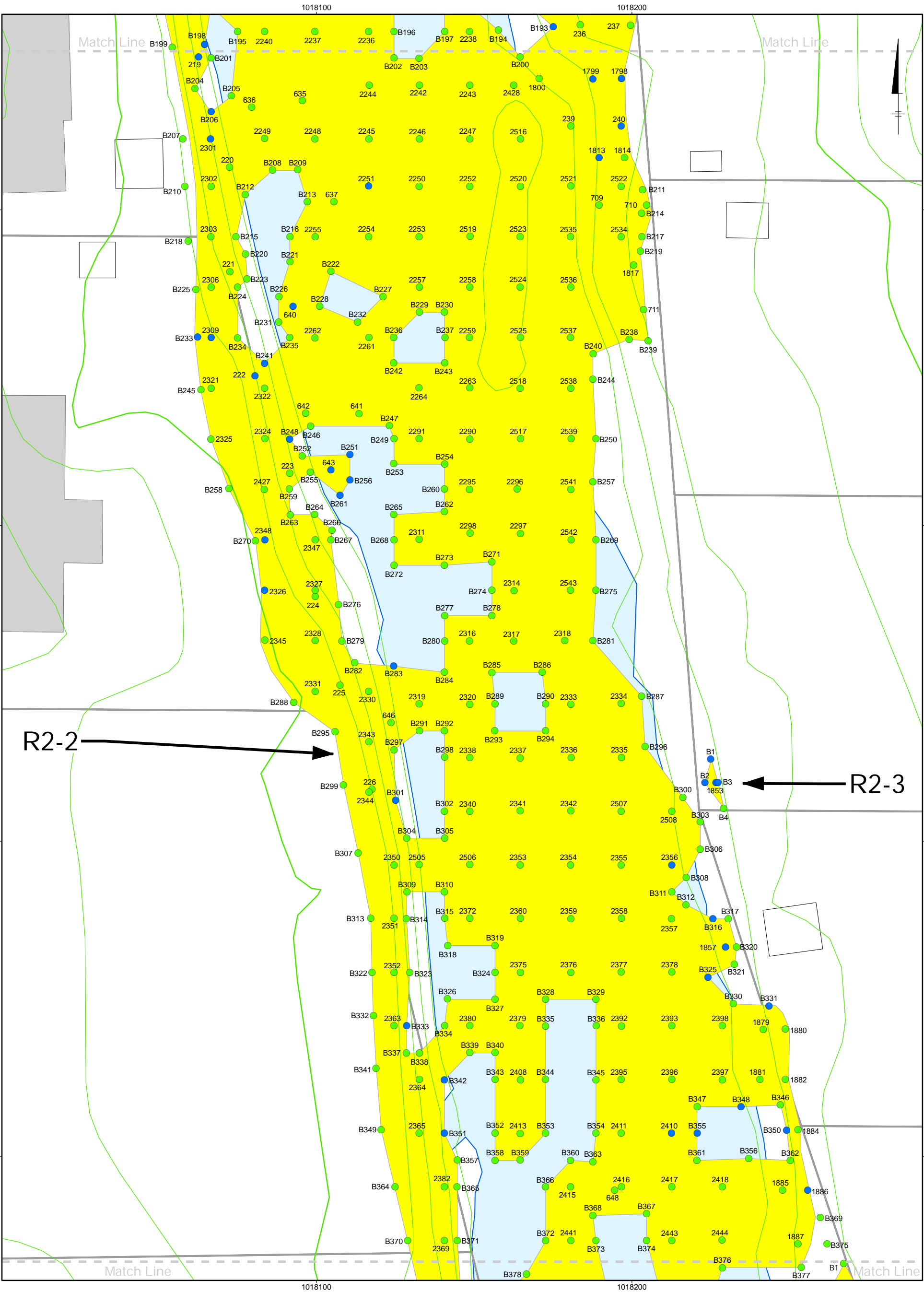
Δ Elevation > 0.0 ft Red

KRESS CREEK / WEST BRANCH DUPAGE RIVER VERIFICATION POINTS  
Bottom of Targeted Material  
Reach 2 Section R2-5

DESIGN					ACTUAL			DATA COMPARISON			COMMENTS
Area	Name	Easting	Northing	Elevation	Easting	Northing	Elevation	Δ Easting	Δ Northing	Δ Elevation	
2	R2-5-B20	1018298.500	1892051.500	713	1018298.498	1892051.536	712.903	-0.002	0.036	-0.097	
2	R2-5-B21	1018314.000	1892048.500	713.4	1018313.987	1892048.529	713.248	-0.013	0.029	-0.152	
2	R2-5-B22	1018252.000	1892046.000	709.5	1018252.035	1892046.021	709.482	0.035	0.021	-0.018	
2	R2-5-B23	1018316.600	1892044.000	713.4	1018316.565	1892044.069	713.235	-0.035	0.069	-0.165	
2	R2-5-B24	1018312.000	1892036.500	713.4	1018311.979	1892036.573	713.284	-0.021	0.073	-0.116	
2	R2-5-B25	1018252.000	1892030.000	709.9	1018251.993	1892029.915	709.886	-0.007	-0.085	-0.014	
2	R2-5-B26	1018310.500	1892028.700	711.9	1018310.462	1892028.655	711.840	-0.038	-0.045	-0.060	
2	R2-5-B27	1018251.900	1892022.400	709.9	1018251.971	1892022.373	709.456	0.071	-0.027	-0.444	
2	R2-5-B28	1018264.900	1892021.900	710.2	1018264.865	1892021.908	710.096	-0.035	0.008	-0.104	
2	R2-5-B29	1018267.900	1892014.400	710.8	1018267.945	1892014.405	710.572	0.045	0.005	-0.228	
2	R2-5-B3	1018266.500	1892143.000	715.2	1018266.526	1892143.025	714.985	0.026	0.025	-0.215	
2	R2-5-B30	1018308.000	1892013.000	712.1	1018307.961	1892013.088	711.927	-0.039	0.088	-0.173	
2	R2-5-B31	1018305.100	1892003.500	712.1	1018305.120	1892003.541	711.944	0.020	0.041	-0.156	
2	R2-5-B32	1018270.000	1892002.000	710.8	1018270.028	1892001.914	710.642	0.028	-0.086	-0.158	
2	R2-5-B33	1018288.000	1892001.500	712.3	1018287.996	1892001.460	712.288	-0.004	-0.040	-0.012	
2	R2-5-B34	1018305.800	1891996.200	711.4	1018305.864	1891996.339	711.380	0.064	0.139	-0.020	
2	R2-5-B35	1018311.300	1891989.700	711.4	1018311.274	1891989.703	711.165	-0.026	0.003	-0.235	
2	R2-5-B36	1018293.600	1891989.600	710.5	1018293.680	1891989.703	710.486	0.080	0.103	-0.014	
2	R2-5-B4	1018296.000	1892143.000	715.5	1018295.892	1892142.949	715.491	-0.108	-0.051	-0.009	
2	R2-5-B5	1018265.500	1892124.000	715.1	1018265.512	1892123.878	714.864	0.012	-0.122	-0.236	
2	R2-5-B6	1018294.500	1892124.000	715	1018294.495	1892124.037	714.857	-0.005	0.037	-0.143	
2	R2-5-B7	1018261.000	1892107.000	711.4	1018261.056	1892107.000	711.230	0.056	0.000	-0.170	
2	R2-5-B8	1018269.500	1892107.000	711.4	1018269.483	1892106.979	711.337	-0.017	-0.021	-0.063	
2	R2-5-B9	1018300.000	1892104.000	714.9	1018299.912	1892103.995	714.795	-0.088	-0.005	-0.105	

Δ Elevation < -0.25 ft Blue      Δ Easting/Northing < or = 0.2 ft Green  
Δ Elevation -0.25 to 0.0 ft Green      Δ Easting/Northing > 0.2 ft Blue  
Δ Elevation > 0.0 ft Red





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE

0 25 50 Feet

SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.00
- ≤ 0.00 to -0.25
- < -0.25

NOTE:

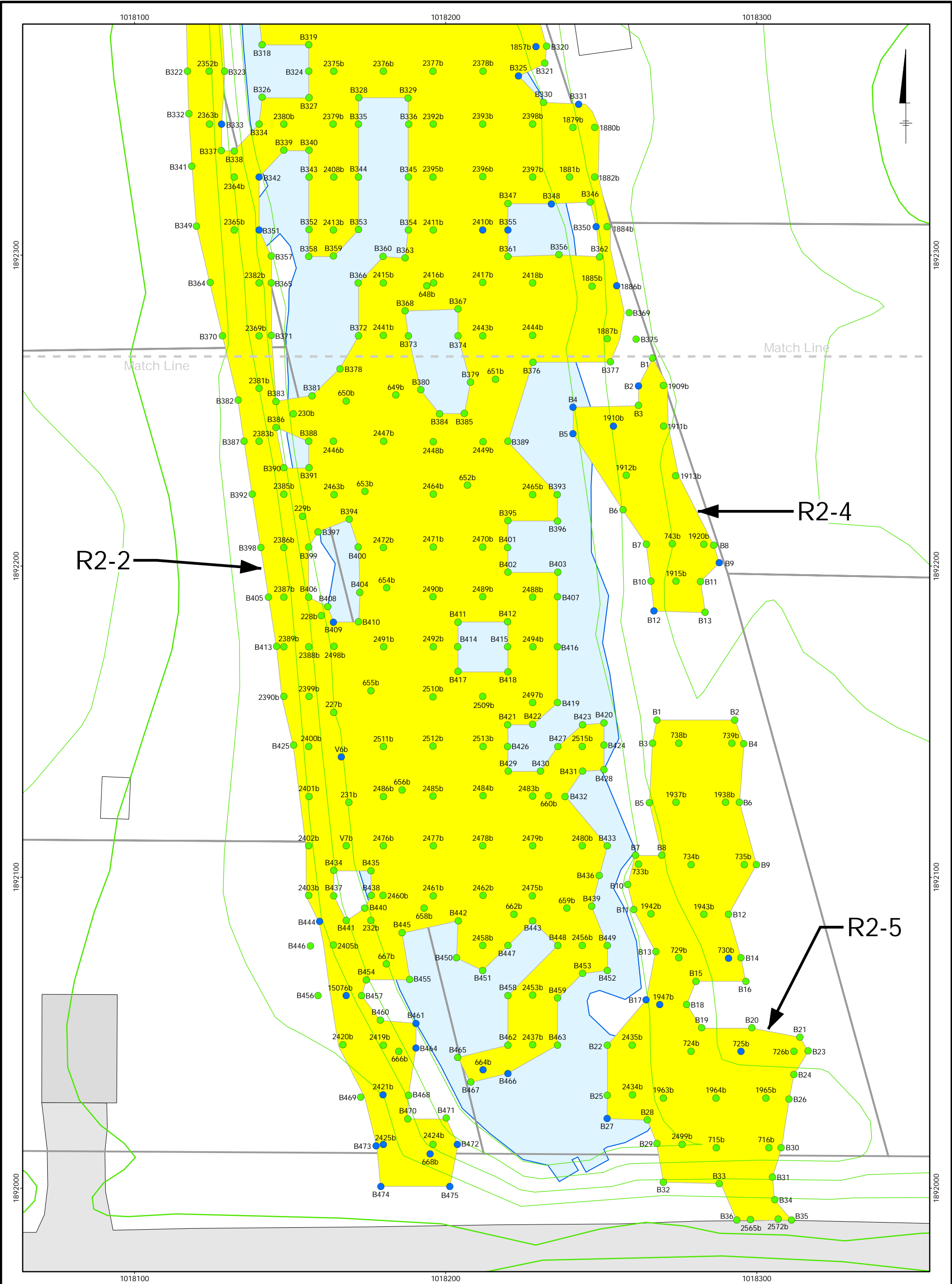
- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE
- DATUM: NAD 83
- UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
**REMEDATION TRACKING SYSTEM**  
**GPS VERIFICATION POINTS**  
**BOTTOM OF TARGETED MATERIA**  
**REACH 2 CENTRA PORTION**

**BBL**  
ENVIRONMENTAL SERVICES, INC.  
Remedial Management & Construction

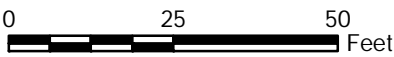
FIGURE  
2





LEGEND:

- 10 FOOT TOPOGRAPHIC CONTOUR
- 2 FOOT TOPOGRAPHIC CONTOUR
- PROPERTY LINE



SURVEY LOCATION:

- LOCATION NOT SURVEYED

ELEVATION DIFFERENCE (ACTUAL VS DESIGN)

- > 0.00
- ≤ 0.00 to -0.25
- < -0.25

NOTE:

- COORDINATE SYSTEM: ILLINOIS EAST STATE PLANE
- DATUM: NAD 83
- UNITS: FEET

KERR-McGEE CHEMICAL LLC  
KRESS CREEK/WEST BRANCH DUPAGE RIVER  
AND SEWAGE TREATMENT PLANT SITES  
REMEDATION TRACKING SYSTEM  
GPS VERIFICATION POINTS  
BOTTOM OF TARGETED MATERIAL  
REACH 2 (SOUTHERN PORTION)

Remedial Management & Construction

FIGURE  
3



**Appendix G**

Water Column Monitoring Data  
Summary for Reaches 1 and 2

**Kress Creek/West Branch of the DuPage River Site and the  
River Portion of the Sewage Treatment Plant Site**

**Remedial Action in Reach 5A**

**Table 1**

**Water Column Monitoring Data for 2005 Reach 5A**

<b>Date</b>	<b>Reach</b>	<b>Turbidity Upstream (NTU)</b>	<b>Turbidity Downstream (NTU)</b>	<b>Downstream - Upstream <math>\Delta</math> NTU</b>
7/15/05	5A	8.2	10.9	2.7
7/18/05	5A	7.8	14.1	6.3
7/19/05	5A	0.7	7.3	6.6
7/20/05	5A	221	14.7	-206.3
7/21/05	5A	18.1	30.6	12.5
7/22/05	5A	3.2	12.6	9.4
7/23/05	5A	15.4	21.4	6
7/25/05	5A	0.6	10.6	10
7/26/05	5A	11.2	4.6	-6.6
7/27/05	5A	38.2	23.9	-14.3
7/28/05	5A	11.9	20.2	8.3
8/1/05	5A	0	33.2	33.2
8/2/05	5A	11.3	41.6	30.3
8/3/05	5A	1.3	15.6	14.3

**Appendix G**  
**Water Column Monitoring Data Summary for Reaches 1 and 2**

Date	Reach	Turbidity Upstream (NTU)	Turbidity 48" Outfall (NTU)	Turbidity Downstream (NTU)	Downstream - Upstream $\Delta$ NTU
8/19/05	1	120		51.3	-68.7
8/20/05	1	81.5		103	21.5
8/22/05	1	34.1		40.9	6.8
8/23/05	1	37.1		64.8	27.7
8/24/05	1	18.9		53.4	34.5
8/25/05	1	26.3		66	39.7
8/26/05	1	43.7		42.1	-1.6
8/27/05	1	21.7		57.7	36
8/29/05	1	2.5		7.8	5.3
8/30/05	1	21.6		48.7	27.1
8/31/05	1	15.6		1.5	-14.1
9/1/05	1	63.3		80.6	17.3
9/2/05	1	41.4		33.8	-7.6
9/6/05	1	33.5		65.3	31.8
9/7/05	1	50.2		18.1	-32.1
9/8/05	1	81.2		117.3	36.1
9/9/05	1	41.4		78.4	37
9/10/05	1	122		168	46
9/11/05	1	251		101	-150
9/12/05	1	190		42.8	-147.2
9/13/05	1	155		163	8
9/14/05	1	202	957	494	-463
9/15/05	1	153	0.9	30.3	-122.7
9/16/05	1	38.5	0	34.5	-4
9/17/05	1	67.3	0	43.3	-24
9/18/05	1	161	0	6.6	-154.4
9/19/05	1	222	47.2	213	-9
9/20/05	1	244	81.6	138	-106
9/21/05	1	164	90.9	131	-33
9/22/05	1	184	120	139	-45
9/23/05	1	159	33.5	52.6	-106.4
9/24/05	1	151	3.4	29.6	-121.4
9/25/05	1	193	6.3	44.6	-148.4
9/26/05	1	89.5	27	51.2	-38.3
9/27/05	1	112	80.6	67.4	-44.6
9/28/05	1	45	1.9	68.5	23.5
9/29/05	1	151	14.8	124	-27
9/30/05	1	86.1	0.8	68.9	-17.2
10/1/05	1	119	24.2	125	6
10/2/05	1	99.3	35.4	76.3	-23
10/3/05	1	113	127	137	10
10/4/05	1	144	130	133	-11

**Appendix G**  
**Water Column Monitoring Data Summary for Reaches 1 and 2**

Date	Reach	Turbidity Upstream (NTU)	Turbidity 48" Outfall (NTU)	Turbidity Downstream (NTU)	Downstream - Upstream $\Delta$ NTU
10/5/05	1	98.8	167	122	-45
10/6/05	1	64.7	15.2	66.8	2.1
10/7/05	1	41.7	0	78.6	36.9
10/8/05	1	58.6	1.4	76.2	17.6
10/9/05	1	73.1	3.5	58.8	-14.3
10/10/05	1	197	128	164	-33
10/11/05	1	61.1	89.7	42.8	-46.9
10/12/05	1	88.3	97.8	112	14.2
10/13/05	1	81.4	98.7	105	6.3
10/14/05	1	193	94	175	-18
10/15/05	1	142	117	143	1
10/16/05	1	149	42.1	122	-27
10/17/05	1	219	130	187	-32
10/18/05	1	198	161	214	16
10/19/05	1	40.7	158	82	-76
10/20/05	1	60.6	100	83.6	-16.4
10/21/05	1	145	120	154	9
10/22/05	1	159	1.1	71.8	-87.2
10/23/05	1	164	0	20.5	-143.5
10/24/05	1	214	438	95.8	-342.2
10/25/05	1	206	22	174	-32
10/26/05	1	204	24.8	67.2	-136.8
10/27/05	1	186	17.3	164	-22
10/28/05	1 and 2	208	80.2	225	17
10/29/05	1 and 2	165	17.1	137	-28
10/30/05	1 and 2	147	21.6	50.9	-96.1
10/31/05	1 and 2	164	24.2	158	-6
11/1/05	1 and 2	156	31.8	77.2	-78.8
11/2/05	1 and 2	154	25	86.4	-67.6
11/3/05	1 and 2	194	174	212	18
11/4/05	1 and 2	33.9		253	219.1*
11/5/05	1 and 2	160		176	16
11/6/05	1 and 2	161		154	-7
11/7/05	1 and 2	175		212	37
11/8/05	1 and 2	179		190	11
11/9/05	1 and 2	148		112	-36
11/10/05	1 and 2	135		168	33
11/11/05	1 and 2	134		145	11
11/12/05	1 and 2	166		169	3
11/13/05	1 and 2	157		134	-23
11/14/05	1 and 2	110		103	-7
11/15/05	1 and 2	135		131	-4

\* Exceedance of the 50 NTU difference between downstream and upstream readings occurred on 11/4/05 when the suction pipes for the bypass pumping system were relocated to the pond west of the railroad in Reach 1.

**Appendix G**  
**Water Column Monitoring Data Summary for Reaches 1 and 2**

Date	Reach	Turbidity Upstream (NTU)	Turbidity 48" Outfall (NTU)	Turbidity Downstream (NTU)	Downstream - Upstream $\Delta$ NTU
11/16/05	1 and 2	130		122	-8
11/17/05	1 and 2	156		152	-4
11/18/05	1 and 2	137		159	22
11/19/05	1 and 2	114		138	24
11/20/05	1 and 2	122		105	-17
11/21/05	1 and 2	148		120	-28
11/22/05	1 and 2	127		159	32
11/23/05	1 and 2	170		167	-3
11/24/05	1 and 2	121		70	-51
11/25/05	1 and 2	122		160	38
11/26/05	1 and 2	73.8		112	38.2
11/27/05	1 and 2	230		200	-30
11/28/05	1 and 2	188		152	-36
11/29/05	1 and 2	145		168	23
11/30/05	1 and 2	171		146	-25
12/1/05	1 and 2	235		145	-90
12/2/05	1 and 2	185		153	-32
12/3/05	1 and 2	163		176	13
12/4/05	1 and 2	142		169	27
12/5/05	1 and 2	131		154	23
12/6/05	1 and 2	169		188	19
12/7/05	1 and 2	61.2		88	26.8
12/8/05	1 and 2	95.3		98	2.7
12/9/05	1 and 2	88		105	17
12/10/05	1 and 2	171		154	-17
12/11/05	1 and 2	96.7		125	28.3

## **Appendix H**

Sampling Data of Resuable  
Overburden for Reaches 1 and 2

**BBL**

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

**Transmittal**

KC 061

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695To: Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: January 11, 2006

File: 71014.004  
Kress Creek Remedial Action, Reach 2  
West Chicago, ILWe are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other \_\_\_\_\_

If material received is not as listed, please notify us at once.

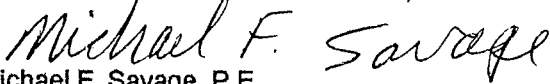
Quantity	Identifying Numbers #	Title	Action*
Reach 2		Reach 2 - Overburden Lift Sample Results	
1	Pile # OB-4-R2, Section R2-2	KC-R2-120305-OB-4A through 4E (and two GC samples)	I
1	Pile # OB-5-R2	Analytical results of failed soil test, all 185 cys of material were transported to REF as targeted material.	I
2	01/11/06	Overburden Piles Tracking Spreadsheet for 2005 (dated 01/11/06)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments:

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

  
Michael F. Savage, P.E.  
Senior Engineer IIMFS/mfs  
Enclosurescc: Mark Gravelding, BBLES  
Mark Schmitt, Severson

01/11/06

C:\Documents and Settings\MFS\My Documents\Kerr-McGee Kress Creek\Transmittals\Overburden Piles for Reach 2, 01-11-06.doc  
K-M File # KC 6.2-1



# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach2

Date Sampled: 12/3/2005 - 12/07/05

PILE #: OB-4- R2

Est. Volume of Pile in Cubic Yards: 10

Number of Samples  
Required Per SOP 214:  
3

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R2-120305-OB-4A	5.5					
KC-R2-120305-OB-4B	4.9					
KC-R2-120705-OB-4C	4.2					
KC-R2-120705-OB-4D	1.4					
KC-R2-120705-OB-4E	1.1					
KC-R2-120305-OB-4QC		7.4	0.5	0.1		
KC-R2-120705-OB-4QC		3.6	0.2	0.1		
Number of Samples (n)	5				S <sub>dup</sub> = sqrt (S <sub>1</sub> <sup>2</sup> + S <sub>2</sub> <sup>2</sup> ) =	
Average (Mean of the sample population) (X bar)	3.4					1.82

Average of samples is <7.2 pCi/g. Proceed with Confidence Level Check described in  
SOP-214, Paragraph 6.12

Standard Deviation of sample population (S<sub>1</sub>)  
U<sub>α</sub> (True Mean) = (X bar) + (t \* (S<sub>1</sub>/sqrt(n)))  
Where "t" is a statistic used for small sample tests  
of hypotheses (the Student Distribution), from  
SOP No. KMS-102, Attachment 10.6

Release Criteria

U<sub>α</sub> < Release Criteria?

SAMPLES TESTED MEET 95% CONFIDENCE LEVEL -  
LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE  
AS ONSITE BACKFILL PER SOP-214

t<sub>α</sub> value  
2.132

1.8

5.1

7.2

3 x S<sub>dup</sub> =

5.47

Mean + 3 S<sub>dup</sub> =

8.9

Mean - 3 S<sub>dup</sub> =

-2.0

QC < (Mean + 3S<sub>dup</sub>)?

O.K.

QC > (Mean - 3S<sub>dup</sub>)?

O.K.

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of  
the sample population, per SOP 214, paragraph 12.1

REVIEWED: BBLES/SES

APPROVED: OFFSITES MANAGER:

Michael F. Savage 01/11/06

Name/date

1-11-06

Name/date

# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach 2

Date Sampled: 12/16/2005

Number of Samples  
Required Per SOP 214:  
6

PILE #: OB-5-R2 Est. Volume of Pile in Cubic Yards: 185

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. In pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R2-121605-OB-5A	3.0					
KC-R2-121605-OB-5B	8.3					
KC-R2-121605-OB-5C	7.4					
KC-R2-121605-OB-5D	8.0					
KC-R2-121605-OB-5E	6.6					
KC-R2-121605-OB-5F	6.9					
KC-R2-121605-OB-5QC	6.5		0.4	0.1	0.3	1.78

Number of Samples (n) 6

Average (Mean of the sample population) (X bar) 6.7

$$S_{dup} = \sqrt{S_1^2 + S_2^2} =$$

Average of samples is <7.2 pCi/g, Proceed with Confidence Level Check described in  
SOP-214, Paragraph 6.12

Standard Deviation of sample population (S<sub>1</sub>)

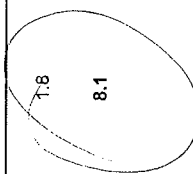
U<sub>a</sub> (True Mean) = (X bar) + (t \* (S<sub>1</sub>/sqrt(n)))  
Where "t" is a statistic used for small sample tests  
of hypotheses (the Student Distribution), from  
SOP No. KMS-102, Attachment 10.6

Release Criteria

U<sub>a</sub> < Release Criteria?

SAMPLES DO NOT MEET 95% CONFIDENCE LEVEL -  
NEED TO COLLECT MORE SAMPLES

"t" value  
2.015



Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of  
the sample population, per SOP 214, paragraph 12.1

$$3 \times S_{dup} =$$

Mean + 3 S<sub>dup</sub> =  
Mean - 3 S<sub>dup</sub> =

QC < (Mean + 3S<sub>dup</sub>)?  
QC > (Mean - 3S<sub>dup</sub>)?

O.K.  
O.K.

REVIEWED: BBLES/SES

APPROVED: OFFSITES MANAGER:

Michael F. Savage

12/19/05 (H/JP)

all 185 cys sent to REF  
as targeted material.

Michael F. Savage,  
BBLES

Kerr-McGee Chemical LLC									
Remedial Action at the Kress Creek Project, West Chicago, IL									
Overburden Piles Tracking Spreadsheet for 2005									
Prepared By: BBLES on 01/11/2006									
Reach No.	Section No.	Overburden Pile Sample No.	Date Sampled	Volume of Pile (cys.)	Date Resampled (if applicable)	Date Statistical Analysis Complete	Date(s) When Backfilled	Area(s) Used for Backfill	Comments
5A	R5A-5	OB-1	7/12/2005	175	N/A	7/25/2005	08/08&09/05	R5A-5	
5A	R5A-5	OB-2	7/15/2005	175	N/A	7/25/2005	08/08&09/05	R5A-5	
5A	R5A-8	OB-1	7/20/2005	148	N/A	7/25/2005	08/01 - 05/05	R5A-8	
1	R1-5	OB-1-R1	9/21/2005	50	N/A	10/21/2005	12/12 to 12/16/05	R1-5	a) 50 cys. reusable and stockpiled for backfill; b) 27 cys. left as base for staging area (27cys sampled again as OB-5-R2).
1	R1-5	OB-2-R1	9/22/2005	0	N/A	10/21/2005	12/12 to 12/16/05	R1-5	Pile started with 77 cys., 50 cys. was covered by overburden that failed and the mixture had to be shipped to REF, 27 cys. left as base for staging area (27cys sampled again as OB-5-R2).
1	R1-5	OB-3-R1	10/13/2005	104	N/A	10/21/2005	12/12 to 12/16/05	R1-5	a) 104 cys. reusable and stockpiled for backfill; b) 46 cys. left as base for staging area (46 cys. sampled again as OB-5-R2).
2	R2-2	OB-1-R2	10/27/2005	300	N/A	11/8/2005	11/4 to 11/10/05	R2-2	
2	R2-2	OB-2-R2	11/1/2005	385	N/A	11/8/2005	11/4 to 11/10/05	R2-2	
2	R2-2	OB-3-R2	11/7/2005	370	N/A	11/10/2005	11/4 to 12/16/05	R2-2	
2	R2-2	OB-4-R2	12/5 & 12/7/05	10	N/A	12/9/2005	12/14/2005	R2-2	Two soil samples and one QC sample were taken on 12/05/05, so three additional soil samples and one QC sample were taken from the pile on 12/07/05 to achieve the required number of soil samples for testing.
1	R1-5	OB-5-R2	12/16/2005	0	185	12/19/2005 - Failed	N/A	N/A	The Pile No. OB-5-R2 was approximately 185 cys and consisted of the 100 cys from the base of the overburden staging area which had been previously sampled as Pile Nos. OB-1-R1, OB-2-R1 and OB-3-R1 and also included soils below the liner of the staging area. OB-5-R2 failed the soil sampling test and the pile was transported to the REF as targeted material.
		TOTAL		1725					
		Reach 5A Total of Overburden Used As Backfill			496 cys				
		Reach 1 Total of Overburden Used As Backfill			154 cys				
		Reach 2 Total of Overburden Used As Backfill			1075 cys				

# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

# Transmittal

KC 058

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695

To: Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: November 10, 2005

File: 71014.004  
Kress Creek Remedial Action, Reach 2  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other \_\_\_\_\_

If material received is not as listed, please notify us at once.


Quantity	Identifying Numbers #	Title	Action*
Reach 2		Reach 2 - Overburden Lift Sample Results	
1	Pile # OB-3-R2, Section R2-2	KC-R2-110705-OB-3A through 3F (approved 11/10/05)	I
2	11/11/05	Overburden Piles Tracking Spreadsheet for 2005 (dated 11/11/05)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments:

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Mark Gravelding, BBLES  
Mark Schmitt, Severson

11/10/05

C:\Documents and Settings\MFS\My Documents\Kerr-McGee Kress Creek\Transmittals\Overburden Piles for Reach 2, 11-08-05.doc  
K-M File # KC 6.2-1

# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach2

Date Sampled: 11/7/2005

PILE #: OB-3- R2

Est. Volume of Pile in Cubic Yards: 370

Number of Samples  
Required Per SOP 214:  
6

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R2-110705-OB-3A	1.1					
KC-R2-110705-OB-3B	1.8					
KC-R2-110705-OB-3C	1.6					
KC-R2-110705-OB-3D	2.4					
KC-R2-110705-OB-3E	4.2					
KC-R2-110705-OB-3F	5.5					
KC-R2-110705-OB-3QC		1.2	0.1	0.0	0.1	1.57
Number of Samples (n)	6					
Average (Mean of the sample population) (X bar)	2.8					
S <sub>dup</sub> = sqrt (S <sub>1</sub> <sup>2</sup> + S <sub>2</sub> <sup>2</sup> ) =						

Average of samples is <7.2 pCi/g. Proceed with Confidence Level Check described in  
SOP-214, Paragraph 6.12

Standard Deviation of sample population (S <sub>1</sub> )	1.6	"t" value 2.015
U <sub>α</sub> (True Mean) = (X bar) + (t * (S <sub>1</sub> /sqrt(n))) Where "t" is a statistic used for small sample tests of hypotheses (the Student Distribution), from SOP No. KMS-102, Attachment 10.6	4.1	
Release Criteria	7.2	
U <sub>α</sub> < Release Criteria?		
SAMPLES TESTED MEET 95% CONFIDENCE LEVEL - LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE AS ONSITE BACKFILL PER SOP-214		

REVIEWED: BBLESSES

APPROVED: OFFSITES MANAGER:

Name/date

Name/date

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of  
the sample population, per SOP 214, paragraph 12.1

3 x S<sub>dup</sub> = 4.71  
Mean + 3 S<sub>dup</sub> = 7.5  
Mean - 3 S<sub>dup</sub> = -1.9  
QC < (Mean + 3S<sub>dup</sub>)? O.K.  
QC > (Mean - 3S<sub>dup</sub>)? O.K.

Kerr-McGee Chemical LLC									
Remedial Action at the Kress Creek Project, West Chicago, IL									
Overburden Piles Tracking Spreadsheet for 2005									
Prepared By: BBLES on 11/10/2005									
Reach No.	Section No.	Overburden Pile Sample No.	Date Sampled	Volume of Pile (cys.)	Date Resampled (if applicable)	Date Statistical Analysis Complete	Date(s) When Backfilled	Area(s) Used for Backfill	Comments
5A	R5A-5	OB-1	7/12/2005	175	N/A	7/25/2005	08/08&09/05	R5A-5	
5A	R5A-5	OB-2	7/15/2005	175	N/A	7/25/2005	08/08&09/05	R5A-5	
5A	R5A-6	OB-1	7/20/2005	146	N/A	7/25/2005	08/01 - 05/05	R5A-6	
1	R1-5	OB-1-R1	9/21/2005	77	N/A	10/21/2005			50 cys. reusable and stockpiled for backfill, 27 cys. left as base for staging area.
1	R1-5	OB-2-R1	9/22/2005	27	N/A	10/21/2005			Pile started with 77 cys., 50 cys. was covered by overburden that failed and the mixture had to be shipped to REF, 27 cys. left as base for staging area.
1	R1-5	OB-3-R1	10/13/2005	150	N/A	10/21/2005			104 cys. reusable and stockpiled for backfill, 46 cys. left as base for staging area.
2	R2-2	OB-1-R2	10/27/2005	300	N/A	11/8/2005			
2	R2-2	OB-2-R2	11/1/2005	395	N/A	11/8/2005			
2	R2-2	OB-3-R2	11/7/2005	370	N/A	11/10/2005			
TOTALS				1815					
For July 2005:				496					
For October 2005:				254					
For November 2005:				1065					
* Monthly totals are based on the date the Statistical Analysis of the overburden pile was completed.									

# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

# Transmittal

KC 057

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695

To: Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: November 8, 2005

File: 71014.004  
Kress Creek Remedial Action, Reach 2  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other\_\_\_\_\_

If material received is not as listed, please notify us at once.

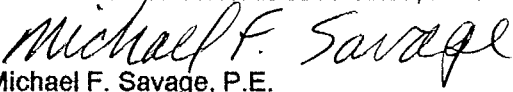
Quantity	Identifying Numbers #	Title	Action*
Reach 2		Reach 2 - Overburden Lift Sample Results	
1	Pile # OB-1-R2, Section R2-2	KC-R2-102705-OB-1A through 1F (approved 11/08/05)	I
1	Pile # OB-2-R2, Section R2-2	KC-R2-110105-OB-2A through 2E (approved 11/08/05)	I
2	11/08/05	Overburden Piles Tracking Spreadsheet for 2005 (dated 11/08/05)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments: The Overburden Piles Tracking Spreadsheet for 2005 is complete for the Reach 1 overburden piles, except for the date(s) backfilled and area(s) backfilled. The data will be inputted once the piles are backfilled.

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Mark Gravelding, BBLES  
Mark Schmitt, Severson

11/08/05

C:\Documents and Settings\MFS\My Documents\Kerr-McGee Kress Creek\Transmittals\Overburden Piles for Reach 2, 11-08-05.doc  
K-M File # KC 6.2-1

# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach2

Date Sampled: 10/27/2005

PILE # : **OB-1- R2**

Est. Volume of Pile In Cubic Yards: 300

Number of Samples  
Required Per SOP 214:  
6

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R2-102705-OB-1A	1.0					
KC-R2-102705-OB-1B	1.5					
KC-R2-102705-OB-1C	0.9					
KC-R2-102705-OB-1D	6.4					
KC-R2-102705-OB-1E	2.2					
KC-R2-102705-OB-1F	4.1					
KC-R2-102705-OB-1QC		1.0	0.1	0.04	0.1	1.99
Number of Samples (n)	6					
Average (Mean of the sample population) (X bar)	2.7					

$$S_{dup} = \sqrt{S_1^2 + S_2^2} =$$

Average of samples is <7.2 pCi/g. Proceed with Confidence Level Check described in  
SOP-214, Paragraph 6.12

Standard Deviation of sample population (S <sub>1</sub> )	2.0	"t" value 2.015
U <sub>α</sub> (True Mean) = (X bar) + (t * (S <sub>1</sub> /sqrt(n))) Where "t" is a statistic used for small sample tests of hypotheses (the Student Distribution), from SOP No. KMS-102, Attachment 10.6	4.3	
Release Criteria	7.2	
U <sub>α</sub> < Release Criteria?		

SAMPLES TESTED MEET 95% CONFIDENCE LEVEL -  
LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE  
AS ONSITE BACKFILL PER SOP-214

REVIEWED: BBLESISES

APPROVED: OFFSITES MANAGER:

Name/date

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of  
the sample population, per SOP 214, paragraph 12.1

3 x S<sub>dup</sub> = 5.97  
Mean + 3 S<sub>dup</sub> = 8.6  
Mean - 3 S<sub>dup</sub> = -3.3  
QC < (Mean + 3S<sub>dup</sub>)? O.K.  
QC > (Mean - 3S<sub>dup</sub>)? O.K.

11/08/05 Michael F. Saragoff / *[Signature]* 11/08/05  
*[Signature]* 11-08-05



# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach2

Date Sampled: 11/1/2005

PILE #: **OB-2- R2**

Est. Volume of Pile in Cubic Yards: 395

Number of Samples  
Required Per SOP 214:  
6

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R2-110105-OB-2A	4.1					
KC-R2-110105-OB-2B	3.4					
KC-R2-110105-OB-2C	4.7					
KC-R2-110105-OB-2D	1.7					
KC-R2-110105-OB-2E	2.1					
KC-R2-110105-OB-2F	1.6					
KC-R2-110105-OB-2QC	-----	2.6	0.2	0.7	0.4	1.28

Number of Samples (n)  
6

Average (Mean of the sample population) (X bar)  
2.9

Average of samples is <7.2 pCi/g, Proceed with Confidence Level Check described in  
SOP-214, Paragraph 6.12

S<sub>dup</sub> = sqrt (S<sub>1</sub><sup>2</sup> + S<sub>2</sub><sup>2</sup>) =

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of  
the sample population, per SOP 214, paragraph 12.1

3 x S <sub>dup</sub> =	3.84	
Mean + 3 S <sub>dup</sub> =	6.8	QC < (Mean + 3S <sub>dup</sub> )? O.K.
Mean - 3 S <sub>dup</sub> =	-0.9	QC > (Mean - 3S <sub>dup</sub> )? O.K.

Standard Deviation of sample population (S <sub>1</sub> )	1.2	"t" value 2.015
U <sub>α</sub> (True Mean) = (X bar) + (t * (S <sub>1</sub> /sqrt(n))) Where "t" is a statistic used for small sample tests of hypotheses (the Student Distribution), from SOP No. KMS-102, Attachment 10.6	3.9	
Release Criteria	7.2	
U <sub>α</sub> < Release Criteria?		

SAMPLES TESTED MEET 95% CONFIDENCE LEVEL -  
LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE  
AS ONSITE BACKFILL PER SOP-214

REVIEWED: BBLES/SES

APPROVED: OFFSITES MANAGER:

11/08/05 Michael F. Savage 11/8/05  
Name/date

Name/date

Kerr-McGee Chemical LLC Remedial Action at the Kress Creek Project, West Chicago, IL									
Overburden Piles Tracking Spreadsheet for 2005									
Prepared By: BBLES on 11/08/2005									
Reach No.	Section No.	Overburden Pile Sample No.	Date Sampled	Volume of Pile (cys.)	Date Resampled (if applicable)	Date Statistical Analysis Complete	Date(s) When Backfilled	Area(s) Used for Backfill	Comments
5A	R5A-5	OB-1	7/12/2005	175	N/A	7/25/2005	08/08&09/05	R5A-5	
5A	R5A-5	OB-2	7/15/2005	175	N/A	7/25/2005	08/08&09/05	R5A-5	
5A	R5A-6	OB-1	7/20/2005	146	N/A	7/25/2005	08/01-05/05	R5A-6	
1	R1-5	OB-1-R1	9/21/2005	77	N/A	10/21/2005			50 cys. reusable and stockpiled for backfill, 27 cys. left as base for staging area.
1	R1-5	OB-2-R1	9/22/2005	27	N/A	10/21/2005			Pile started with 77 cys., 50 cys. was covered by overburden that failed and the mixture had to be shipped to REF. 27 cys. left as base for staging area.
1	R1-5	OB-3-R1	10/13/2005	150	N/A	10/21/2005			104 cys. reusable and stockpiled for backfill, 46 cys. left as base for staging area.
2	R2-2	OB-1-R2	10/27/2005	300	N/A	11/8/2005			
		OB-2-R2	11/17/2005	395	N/A	11/8/2005			
		TOTALS		1445					
		For July 2005:		496					
		For October 2005:		254					
		For November 2005:		695					
		* Monthly totals are based on the date the Statistical Analysis of the overburden pile was completed.							

# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

# Transmittal

KC 050

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695

To: Mark Krippel  
Kerr-McGee Chemical LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: November 1, 2005  
File: 71014.003  
Kress Creek Remedial Action, Reach 1  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other\_\_\_\_\_

If material received is not as listed, please notify us at once.


Quantity	Identifying Numbers #	Title	Action*
Reach 1		Reach 1 - Overburden Lift Sample Results	
1	Pile # OB-1-R1, Section R1-5	KC-R1-092105-OB-1A through 1F (approved 10/21/05)	I
1	Pile # OB-2-R1, Section R1-5	KC-R1-092205-OB-2A through 2E (approved 10/21/05)	I
1	Pile # OB-3-R1, Section R1-5	KC-R1-101305-OB-2A through 2F (approved 10/21/05)	I
2	11/01/05	Overburden Piles Tracking Spreadsheet for 2005 (dated 11/01/05)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments: The Overburden Piles Tracking Spreadsheet for 2005 is complete for the Reach 1 overburden piles, except for the date(s) backfilled and area(s) backfilled. The data will be inputted once the piles are backfilled.

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Mark Gravelding, BBLES  
Mark Schmitt, Severson

11/01/05

C:\Documents and Settings\mfs\My Documents\Kerr-McGee Kress Creek\Transmittals\Overburden Piles for Reach 1, 11-01-05.doc  
K-M File # KC 6.2-1

# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach 1

Date Sampled: 9/21/2005

PILE #: OB-1- R1

Est. Volume of Pile in Cubic Yards: 77

Number of Samples  
Required Per SOP 214: 5

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R1-092105-OB-1A	3.7					
KC-R1-092105-OB-1B	6.0					
KC-R1-092105-OB-1C	5.0					
KC-R1-092105-OB-1D	5.0					
KC-R1-092105-OB-1E	3.4					
KC-R1-092105-OB-1F	3.7					
KC-R1-092105-OB-1QC	-----	3.9	0.3	0.1	0.2	0.96

Number of Samples (n) 6

Average (Mean of the sample population) (X bar) 4.5

$$S_{dup} = \sqrt{S_1^2 + S_2^2} =$$

Average of samples is <7.2 pCi/g, Proceed with Confidence Level Check described in SOP-214, Paragraph 6.12

Standard Deviation of sample population (S <sub>1</sub> )	0.9	"t" value 2.015
U <sub>α</sub> (True Mean) = (X bar) + (t * (S <sub>1</sub> /sqrt(n))) Where "t" is a statistic used for small sample tests of hypotheses (the Student Distribution), from SOP No. KMS-102, Attachment 10.6	5.2	
Release Criteria	7.2	

U<sub>α</sub> < Release Criteria?

SAMPLES TESTED MEET 95% CONFIDENCE LEVEL -  
LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE  
AS ONSITE BACKFILL PER SOP-214

REVIEWED: BBLES/SES 10/21/05 Michael F. Savage 10/15/05

APPROVED: OFFSITES MANAGER: Jeffery L. Williams 10/21/05

Name/date

Name/date

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of the sample population, per SOP 214, paragraph 12.1

$$3 \times S_{dup} = 2.87$$

$$\begin{aligned} \text{Mean} + 3 S_{dup} &= 7.3 & \text{QC} < (\text{Mean} + 3 S_{dup})? & \text{O.K.} \\ \text{Mean} - 3 S_{dup} &= 1.6 & \text{QC} > (\text{Mean} - 3 S_{dup})? & \text{O.K.} \end{aligned}$$

# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach 1

Date Sampled: 9/22/2005

PILE #: OB-2- R1

Est. Volume of Pile in Cubic Yards: 77

Number of Samples  
Required Per SOP 214:  
5

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R1-092205-OB-2A	3.4					
KC-R1-092205-OB-2B	4.8					
KC-R1-092205-OB-2C	3.6					
KC-R1-092205-OB-2D	3.3					
KC-R1-092205-OB-2E	3.7					
KC-R1-092205-OB-20C	-----	3.7	0.2	0.1	0.2	0.56
S <sub>dup</sub> = sqrt (S <sub>1</sub> <sup>2</sup> + S <sub>2</sub> <sup>2</sup> ) =						
Number of Samples (n)	5					
Average (Mean of the sample population) (X bar)	3.8					

Average of samples is <7.2 pCi/g. Proceed with Confidence Level Check described in SOP-214, Paragraph 6.12

Standard Deviation of sample population (S <sub>1</sub> )	0.5	"t" value 2.132
U <sub>α</sub> (True Mean) = (X bar) + (t * (S <sub>1</sub> /sqrt(n)))	4.3	
Where "t" is a statistic used for small sample tests of hypotheses (the Student Distribution), from SOP No. KMS-102, Attachment 10.6		
Release Criteria	7.2	
U <sub>α</sub> < Release Criteria?		
SAMPLES TESTED MEET 95% CONFIDENCE LEVEL - LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE AS ONSITE BACKFILL PER SOP-214		

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of the sample population, per SOP 214, paragraph 12.1

3 x S <sub>dup</sub> =	1.68	
Mean + 3 S <sub>dup</sub> =	5.4	QC < (Mean + 3S <sub>dup</sub> )?
Mean - 3 S <sub>dup</sub> =	2.1	QC > (Mean - 3S <sub>dup</sub> )?
		O.K. O.K.

REVIEWED: BBLES/SES

APPROVED: OFFSITES MANAGER:

Name/date

Name/date

# OVERBURDEN PILE SAMPLING

Excavation Area: Kress Creek (KC) Reach 1

Date Sampled: 10/13/2005

PILE # : OB-3-R1

Est. Volume of Pile in Cubic Yards: 150

Number of Samples  
Required Per SOP 214:  
6

Sample #	Total Radium in pCi/g (Th 232 + Ra 226)	QC Sample Dup. Tot. Rad. in pCi/g (Th 232 + Ra 226)	2 sigma uncertainty (Th 232)	2 sigma uncertainty (Ra 226)	S <sub>2</sub> Std. Dev. for the analyses of the duplicate sample	S <sub>dup</sub> Std. Dev. of the duplicate sampling & measurement
KC-R1-101305-OB-2A	2.6					
KC-R1-101305-OB-2B	2.9					
KC-R1-101305-OB-2C	3.2					
KC-R1-101305-OB-2D	1.5					
KC-R1-101305-OB-2E	1.7					
KC-R1-101305-OB-2F	1.8					
KC-R1-101305-OB-2QC	3.2		0.2	0.1	0.2	0.66

Number of Samples (n)

Average (Mean of the sample population) (X bar)

Average of samples is <7.2 pCi/g. Proceed with Confidence Level Check described in  
SOP-214, Paragraph 6.12

Standard Deviation of sample population (S<sub>1</sub>)

U<sub>α</sub> (True Mean) = (X bar) + (t \* (S<sub>1</sub>/sqrt(n)))  
Where "t" is a statistic used for small sample tests  
of hypotheses (the Student Distribution), from  
SOP No. KMS-102, Attachment 10.6

Release Criteria

U<sub>α</sub> < Release Criteria?

SAMPLES TESTED MEET 95% CONFIDENCE LEVEL -  
LIFT IS RADIOLOGICALLY ACCEPTABLE FOR USE  
AS ONSITE BACKFILL PER SOP-214

REVIEWED: BBLESSES

APPROVED: OFFSITES MANAGER:

Name/date

Check if QC Sample Dup. is within 3 Standard Deviations (3 S<sub>dup</sub>) of the mean of  
the sample population, per SOP 214, paragraph 12.1

3 x S<sub>dup</sub> = 1.99  
Mean + 3 S<sub>dup</sub> = 4.3  
Mean - 3 S<sub>dup</sub> = 0.3  
QC < (Mean + 3S<sub>dup</sub>)? O.K.  
QC > (Mean - 3S<sub>dup</sub>)? O.K.



**Appendix I**

Imported Material Sampling Data



# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

## Transmittal

KC 072

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695

To: Mark Krippel  
Tronox LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: April 13, 2006

File: 71014.004  
Kress Creek Remedial Action, Reach 5A, 1 & 2  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other \_\_\_\_\_

If material received is not as listed, please notify us at once.

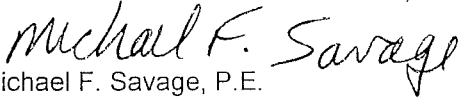
Quantity	Identifying Numbers #	Title	Action*
1	Sec 02200 1.6C	Imported Backfill & Topsoil Quantities	I
		As Requested by Client Quality Control	

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments:

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/bdw  
Enclosures

cc: Mark Schmitt, Severson

04/13/06

C:\Documents and Settings\bwentzel\My Documents\Kress Creek\Transmittals\Backfill & Topsoil Quantities Sec 02200 R5A,1 & 2 4-13-06.doc  
K-M File # KC 4.1-3-3



SEVENSON ENVIRONMENTAL SERVICES, INC.  
2749 LOCKPORT RD.  
NIAGARA FALLS, NY 14305  
(716) 284-0431 Fax (716) 284-7645

Kress Creek Remedial Action  
West Chicago, IL

## LETTER OF TRANSMITTAL

To: Mike Savage  
BBLES  
\_\_\_\_\_  
\_\_\_\_\_

Date: 4/12/2006  
Transmittal No.: 013  
Job Number: 71014  
RE: Requested additional information  
for Submittals KC068 and KC069

Address Reply To: Rick Elia  
800 Weyrauch Street  
West Chicago, IL 60185

We Are Sending the Following:

☒ Attached  
☐ Under Separate Cover Via

☐ Specifications  
☐ Certificates Of Compliance  
☐ Manufacturer Instructions  
☐ O&M Manuals and Data  
☐ Electronic Copy

☐ Prints  
☐ Drawings  
☐ Subcontract  
☐ Copy of Letter  
☒ Records

☐ Work Plans  
☐ Samples  
☒ Report  
☐ Submittals  
☐ Other: \_\_\_\_\_

Copies	Date	Spec. Number	Description
2	4/12/2006	02200 1.6.C And as requested	Imported Material quantity tracking spreadsheets and corresponding required sampling.

These are Transmitted as Checked Below:

☐ For Approval  
☒ For Your Use  
☒ As Requested  
☐ For Review and Comment

☐ Approved as Submitted  
☐ Approved as Noted  
☐ Returned for Corrections  
☐ Issued for Construction

☐ Resubmit \_\_\_ Copies for Approval  
☐ Submit \_\_\_ Copies for Distribution  
☐ Return \_\_\_ Corrected Prints  
☐ Preliminary/Reference Only  
☐ Prints Returned After Loan  
☐ Other \_\_\_\_\_

☐ For Bids Due: \_\_\_\_\_

Remarks:

Any Questions or comments please call Mark Schmitt on site at  
630-293-7926 or Mike Crystal at 716-284-0431.

Copy To: \_\_\_\_\_

Sent By: Rick Elia

Received By: \_\_\_\_\_

## BACKFILL - Reach 5A, 1 & 2 during 2005

Delivery Date	Location	Delivered By	Loads	Tons	Total Tons	CY	Total CY	Approved Backfill Sample Number
8/5/2005	R5A	Lootens	24	500	500	333	333	Samples from BBLES Transmittal KC068 correspond to 9073 cy of backfill
8/17/2005	R1	Lootens	19	485	984	323	656	
8/23/2005	R1	Lootens	94	1692	2676	1128	1784	
8/26/2005	R1	Lootens	110	2273	4949	1515	3299	
8/27/2005	R1	Lootens	68	1584	6533	1056	4355	
9/1/2005	R1	Lootens	89	1977	8510	1318	5673	
9/10/2005	R1	Lootens	8	144	8654	96	5769	
9/15/2005	R1	Lootens	28	504	9158	336	6105	
9/19/2006	R1	Lootens	2	42	9200	28	6133	
9/20/2005	R1	Lootens	106	2118	11318	1412	7545	
9/28/2005	R1	Lootens	63	1419	12737	946	8491	
9/29/2005	R1	Lootens	41	873	13610	582	9073	
10/10/2005	R2	Lootens	91	1938	15548	1292	10365	Samples from BBLES Transmittal KC069 correspond to 7074 cy of backfill
11/3/2005	R2	Lootens	74	1512	17060	1008	11373	
11/30/2005	R2	Lootens	113	2439	19499	1626	12999	
12/1/2005	R2	Lootens	122	2805	22304	1870	14869	
12/2/2005	R2	Lootens	84	1917	24221	1278	16147	

## TOPSOIL - Reach 5A, 1, & 2 during 2005

Delivery Date	Location	Delivered By	Loads	Tons	Total Tons	CY	Total CY	Approved Backfill Sample Number
8/5/2005	R5A	Lootens	19	374	374	249	249	Samples from BBLES Transmittal KC068 correspond to 657 cy of topsoil
8/17/2005	R5A	Lootens	24	612	986	408	657	
8/18/2005	R5A	Lootens	4	0	986	0	657	
12/7/2005	R1/R2	Lootens	98	2064	3050	1376	2033	Samples from BBLES Transmittal KC069 correspond to 5595 cy of topsoil
12/8/2006	R1/R2	Lootens	128	2679	5729	1786	3819	
12/10/2006	R1/R2	Lootens	83	1250	6978	833	4652	
12/13/2005	R1/R2	Lootens	88	1754	8732	1169	5821	
12/16/2005	R1/R2	Lootens	33	647	9378	431	6252	

# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

# Transmittal

KC 069

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. :(630) 293-7695

To: Mark Krippel  
Tronox LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: March 30, 2006

File: 71014.002  
Kress Creek Remedial Action, Reach 5A  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other\_\_\_\_\_

If material received is not as listed, please notify us at once.


Quantity	Identifying Numbers #	Title	Action*
1	Sec 02200	Backfill Soil Testing-RCRA HAZ, RAD for Lootens Clay & Topsoil (See Comments Below)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments: The source for Clay & Topsoil Backfill is Art Lootens & Son Inc. 0S551 Joliet Rd. West Chicago IL 60185

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Mark Schmitt, Severson

03/30/06

C:\Documents and Settings\bwentzel\My Documents\Kress Creek\Transmittals\Backfill Testing Sec 02200 Topsoil, 3-30-06.doc  
K-M File # KC 6.2-1



SEVENSON ENVIRONMENTAL SERVICES, INC.  
2749 LOCKPORT RD.  
NIAGARA FALLS, NY 14305  
(716) 284-0431 Fax (716) 284-7645

KC 5A River Portion  
West Chicago, IL

### LETTER OF TRANSMITTAL

To: Mike Savage  
BBLES  
\_\_\_\_\_  
\_\_\_\_\_

Date: 10/20/2005  
Transmittal No.: 005  
Job Number: \_\_\_\_\_  
RE: Backfill Soil Testing

Address Reply To: Mike Crystal  
2749 Lockport Road  
Niagara Falls, NY 14305

We Are Sending the Following:

☒ Attached  
☐ Under Separate Cover Via

☐ Specifications  
☐ Certificates Of Compliance  
☐ Manufacturer Instructions  
☐ O&M Manuals and Data  
☐ Electronic Copy

☐ Prints  
☐ Drawings  
☐ Subcontract  
☐ Copy of Letter  
☐ Records

☐ Work Plans  
☐ Samples  
☐ Report  
☒ Submittals  
☐ Other: \_\_\_\_\_

Copies	Date	Spec. Number	Description
2	10/20/2005	Section No. 02200	Backfill Soil Testing - RCRA Haz, Rad for Lootens
			clay and topsoil.

These are Transmitted as Checked Below:

☐ For Approval  
☒ For Your Use  
☐ As Requested  
☐ For Review and Comment

☐ Approved as Submitted  
☐ Approved as Noted  
☐ Returned for Corrections  
☐ Issued for Construction

☐ Resubmit \_\_\_ Copies for Approval  
☐ Submit \_\_\_ Copies for Distribution  
☐ Return \_\_\_ Corrected Prints  
☐ Preliminary/Reference Only  
☐ Prints Returned After Loan  
☐ Other \_\_\_\_\_

☐ For Bids Due: \_\_\_\_\_

Remarks:

Any Questions or comments please call Mark Schmitt on site at  
630-293-7926 or Mike Crystal at 716-284-0431.

Copy To: \_\_\_\_\_

Sent By: Mark Schmitt

Received By:

# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

## Transmittal

KC 069

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695

To: Mark Krippel  
Tronox LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: March 30, 2006

File: 71014.002  
Kress Creek Remedial Action, Reach 5A  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other \_\_\_\_\_

If material received is not as listed, please notify us at once.

Quantity	Identifying Numbers #	Title	Action*
1	Sec 02200	Backfill Soil Testing-RCRA HAZ, RAD for Lootens Clay & Topsoil (See Comments Below)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments: The source for Clay & Topsoil Backfill is Art Lootens & Son Inc. 0S551 Joliet Rd. West Chicago IL 60185

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

*Michael F. Savage*  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Mark Schmitt, Severson

03/30/06

C:\Documents and Settings\bwentzel\My Documents\Kress Creek\Transmittals\Backfill Testing Sec 02200 Topsoil, 3-30-06.doc  
K-M File # KC 6.2-1

Configuration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_KC100605OSTS001\_GE1\_FVSU\_88281.CNF;1

---- Sample Information ----

Sample Title : KC-100605-OSTS-001  
 Sample ID : kc100605osts001 Sample Quantity : 1.13400E+03 gram  
 Sample Type : Dry weight Sample Geometry :  
 Sample Number : 88281 Spterm Collector : ROB MADDOX  
 Analyzed By :

---- Sample Decay/Count Information ----

Sample Date : 8-OCT-2005 00:00:00. Acquisition date : 8-OCT-2005 10:40:48.  
 Decay time : 0 10:40:48.98 % dead time : 0.0%  
 Elapsed live time: 0 00:45:00.00 Elapsed real time: 0 00:45:01.29


---- Detector Parameters ----

Energy cal. time : 9-FEB-2005 11:15:05. Energy cal. oper.: RAY LANCASTER  
 Detector name : GE1 Counting geometry: FVSU  
 Effic. cal. time : 9-FEB-2005 13:19:57. Effic. cal. oper.: RAY LANCASTER

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
K-40	1.543E+01	1.905E+00	2.894E-01	2.967E-02	53.310
RA-226	6.488E-01	8.096E-02	1.461E-01	2.267E-02	4.442
TH-232	8.957E-01	1.654E-01	1.507E-01	1.492E-02	5.942
U-238	1.062E+00	4.723E-01	7.570E-01	9.499E-02	1.403

 10-8-05



Configuration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_KC100605OSBF002\_GE1\_FVSU\_88282.CNF;1

## ---- Sample Information ----

Sample Title : KC-100605-OSBF-002  
Sample ID : kc100605osbf002 Sample Quantity : 1.00900E+03 gram  
Sample Type : Dry weight Sample Geometry :  
Sample Number : 88282 Spctrm Collector : ROB MADDOX  
Analyzed By :

## ---- Sample Decay/Count Information ----

Sample Date : 8-OCT-2005 00:00:00. Acquisition date : 8-OCT-2005 11:28:55.  
Decay time : 0 11:28:55.31 % dead time : 0.0%  
Elapsed live time: 0 00:45:00.00 Elapsed real time: 0 00:45:01.12

## ---- Detector Parameters ----

Energy cal. time : 9-FEB-2005 11:15:05. Energy cal. oper.: RAY LANCASTER  
Detector name : GE1 Counting geometry: FVSU  
Effic. cal. time : 9-FEB-2005 13:19:57. Effic. cal. oper.: RAY LANCASTER

## Combined Activity-MDA Report

## ---- Identified Nuclides ----

Nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
K-40	1.900E+01	2.292E+00	3.253E-01	3.334E-02	58.414
RA-226	7.300E-01	8.888E-02	1.484E-01	2.303E-02	4.921
U-238	1.398E+00	5.203E-01	7.596E-01	9.531E-02	1.841

## ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity K.L. (pCi/gram) Ided	Act error	MDA (pCi/gram)	MDA error	Act/MDA
TH-232	6.975E-01 +	2.053E-01	3.106E-01	3.073E-02	2.246

 10-8-05

**WASTE STREAM TECHNOLOGY, INC.**


302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/30/05  
Work Order Number: 5123013

**Prepared For**  
Mike Crystal  
Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: E868

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
\_\_\_\_\_  
Brian S. Schepart, PhD., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AL Clay	5123013-02	Soil	09/22/05 17:32	09/23/05 10:10

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5I23013-02) Soil Sampled: 09/22/05 17:32 Received: 09/23/05 10:10									
Mercury	ND	0.001	mg/L	1	A152922	09/29/05	09/29/05	EPA 7470A-TCLP	
Silver	ND	0.025	"	5	A152806	09/28/05	09/28/05	6010B	
Arsenic	ND	0.045	"	"	"	"	09/28/05	"	
Barium	0.349	0.025	"	"	"	"	09/28/05	"	
Cadmium	ND	0.025	"	"	"	"	09/28/05	"	
Chromium	ND	0.025	"	"	"	"	"	"	
Lead	ND	0.075	"	"	"	"	"	"	
Selenium	ND	0.095	"	"	"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5I23013-02) Soil Sampled: 09/22/05 17:32 Received: 09/23/05 10:10									
vinyl chloride	ND	10	ug/l	1	A153002	09/30/05	09/30/05	8260	U
1,1-dichloroethene	ND	10	"	"	"	"	"	"	U
2-butanone	ND	100	"	"	"	"	"	"	U
chloroform	ND	10	"	"	"	"	"	"	U
carbon tetrachloride	ND	10	"	"	"	"	"	"	U
benzene	ND	10	"	"	"	"	"	"	U
1,2-dichloroethane	ND	10	"	"	"	"	"	"	U
trichloroethene	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	10	"	"	"	"	"	"	U
chlorobenzene	ND	10	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		101 %	66-123		"	"	"	"	
Surrogate: Toluene-d8		104 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		101 %	85-123		"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**TCLP Pesticides by EPA Method 1311/8080A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5I23013-02) Soil Sampled: 09/22/05 17:32 Received: 09/23/05 10:10									
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	A152821	09/28/05	09/29/05	8081	U
Heptachlor	ND	0.040	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	U
Endrin	ND	0.040	"	"	"	"	"	"	U
Methoxychlor	ND	0.040	"	"	"	"	"	"	U
Chlordane	ND	0.800	"	"	"	"	"	"	U
Toxaphene	ND	1.00	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		102 %	67-123		"	"	"	"	
Surrogate: Decachlorobiphenyl		94.5 %	68-132		"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**TCLP Herbicides by EPA Method 1311/8151A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5123013-02) Soil Sampled: 09/22/05 17:32 Received: 09/23/05 10:10									
2,4-D	ND	0.4	ug/l	1	A152712	09/27/05	09/30/05	8151	U
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	U
Surrogate: 2,4-DCPAA		103 %	24-146	"	"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**TCLP Semivolatile Organic Compounds by EPA Method 1311/8270C**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5I23013-02) Soil Sampled: 09/22/05 17:32 Received: 09/23/05 10:10									
pyridine	ND	8	ug/l	1	ATS2703	09/29/05	09/30/05	8270C-TCLP	U
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	U
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	U
hexachloroethane	ND	8	"	"	"	"	"	"	U
nitrobenzene	ND	8	"	"	"	"	"	"	U
hexachlorobutadiene	ND	8	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	U
hexachlorobenzene	ND	8	"	"	"	"	"	"	U
pentachlorophenol	ND	16	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		38.5 %		14-33	"	"	"	"	
Surrogate: Phenol-d6		24.0 %		10-35	"	"	"	"	
Surrogate: Nitrobenzene-d5		60.5 %		38-96	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		63.0 %		41-95	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		77.5 %		44-124	"	"	"	"	
Surrogate: Terphenyl-d14		59.0 %		42-127	"	"	"	"	

Waste Stream Technology Inc.

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5123013-02) Soil Sampled: 09/22/05 17:32 Received: 09/23/05 10:10									
pH	7.94	0.10	pH Units	1	AI52916	09/29/05	09/29/05	EPA 9045C	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

**Physical Parameters by APHA/ASTM/EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Clay (5I23013-02) Soil    Sampled: 09/22/05 17:32    Received: 09/23/05 10:10									
Ignitability by Flashpoint	>200		deg F	I	AI52818	09/28/05	09/28/05	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AI53016	09/28/05	09/30/05	Section 7.3.3.2	
Reactive Sulfide	ND	40.0	"	"	AI53019	"	09/30/05	Section 7.3.4.2	

Waste Stream Technology Inc.

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

### Notes and Definitions

U Analyte included in the analysis, but not detected  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference



302 GROTE STREET  
BUFFALO, NY 14207  
(716) 876-5290

52315

# CHAIN OF CUSTODY RECORD

[illegible]

LAB USE: REFRIGERATOR # \_\_\_\_\_ SHELF # \_\_\_\_\_

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

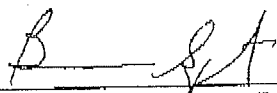
**Analytical Data Report**  
Report Date: 10/14/05  
Work Order Number: 5J07008

**Prepared For**  
Rick Elia Jr.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: E868

Enclosed are the results of analyses for samples received by the laboratory on 10/07/05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/14/05 16:32

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AL Topsoil	5J07008-01	Soil	10/06/05 16:35	10/07/05 10:15

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/14/05 16:32

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (5J07008-01) Soil Sampled: 10/06/05 16:35 Received: 10/07/05 10:15									
vinyl chloride	ND	10	ug/l	1	AJS1303	10/13/05	10/13/05	8260	U
1,1-dichloroethene	ND	10	"	"	"	"	"	"	U
2-butanone	ND	100	"	"	"	"	"	"	U
chloroform	ND	10	"	"	"	"	"	"	U
carbon tetrachloride	ND	10	"	"	"	"	"	"	U
benzene	ND	10	"	"	"	"	"	"	U
1,2-dichloroethane	ND	10	"	"	"	"	"	"	U
trichloroethene	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	10	"	"	"	"	"	"	U
chlorobenzene	ND	10	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		83.0 %		66-128	"	"	"	"	
Surrogate: Toluene-d8		90.3 %		81-118	"	"	"	"	
Surrogate: Bromofluorobenzene		92.0 %		85-123	"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/14/05 16:32

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (5J07008-01) Soil Sampled: 10/06/05 16:35 Received: 10/07/05 10:15									
pH	7.82	0.10	pH Units	1	AJ50726	10/07/05	10/07/05	EPA 9045C	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/14/05 16:32

**Physical Parameters by APHA/ASTM/EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (5J07008-01) Soil Sampled: 10/06/05 16:35 Received: 10/07/05 10:15									
Ignitability by Flashpoint	>200		deg F	1	AJ51012	10/10/05	10/10/05	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AJ51330	10/11/05	10/14/05	Section 7.3.3.2	U
Reactive Sulfide	40.1	40.0	"	"	AJ51329	"	10/14/05	Section 7.3.4.2	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/14/05 16:32

### Notes and Definitions

U Analyte included in the analysis, but not detected  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference



# TECHNOLOGY

302 GROTE STREET  
BUFFALO, NY 14207  
(716) 878-5290

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## CHAIN OF CUSTODY RECORD

[illegible]

**WASTE STREAM TECHNOLOGY, INC.**


302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 10/17/05  
Work Order Number: 5123013

**Prepared For**  
Rick Elia Jr.  
Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: E868

Enclosed are the results of analyses for samples received by the laboratory on 09/23/05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
\_\_\_\_\_  
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/17/05 10:07

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AL Topsoil	5I23013-01	Soil	09/22/05 17:30	09/23/05 10:10

Waste Stream Technology Inc.

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/17/05 10:07

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (5I23013-01) Soil Sampled: 09/22/05 17:30 Received: 09/23/05 10:10									
Mercury	ND	0.001	mg/L	1	A152922	09/29/05	09/29/05	EPA 7470A-TCLP	
Silver	ND	0.025	"	5	A152806	09/28/05	09/28/05	6010B	
Arsenic	ND	0.045	"	"	"	"	"	"	
Barium	0.622	0.025	"	"	"	"	"	"	
Cadmium	ND	0.025	"	"	"	"	"	"	
Chromium	ND	0.025	"	"	"	"	"	"	
Lead	ND	0.075	"	"	"	"	"	"	
Selenium	ND	0.095	"	"	"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/17/05 10:07

**TCLP Pesticides by EPA Method 1311/8080A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (SI23013-01) Soil Sampled: 09/22/05 17:30 Received: 09/23/05 10:10									
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	AI52821	09/28/05	09/29/05	8081	U
Heptachlor	ND	0.040	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	U
Endrin	ND	0.040	"	"	"	"	"	"	U
Methoxychlor	ND	0.040	"	"	"	"	"	"	U
Chlordane	ND	0.800	"	"	"	"	"	"	U
Toxaphene	ND	1.00	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		106%		67-123	"	"	"	"	
Surrogate: Decachlorobiphenyl		107%		68-132	"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/17/05 10:07

**TCLP Herbicides by EPA Method 1311/8151A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (5I23013-01) Soil Sampled: 09/22/05 17:30 Received: 09/23/05 10:10									
2,4-D	ND	0.4	ug/l	1	A152712	09/27/05	09/30/05	8151	U
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	U
Surrogate: 2,4-DCPAA		83.5 %	24-146		"	"	"	"	



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/17/05 10:07

**TCLP Semivolatile Organic Compounds by EPA Method 1311/8270C**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AL Topsoil (5123013-01) Soil Sampled: 09/22/05 17:30 Received: 09/23/05 10:10									
pyridine	ND	8	ug/l	1	A152703	09/29/05	09/30/05	8270C-TCLP	U
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	U
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	U
hexachloroethane	ND	8	"	"	"	"	"	"	U
nitrobenzene	ND	8	"	"	"	"	"	"	U
hexachlorobutadiene	ND	8	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	U
hexachlorobenzene	ND	8	"	"	"	"	"	"	U
pentachlorophenol	ND	16	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		34.9 %	14-53		"	"	"	"	
Surrogate: Phenol-d6		22.9 %	10-35		"	"	"	"	
Surrogate: Nitrobenzene-d5		57.5 %	38-96		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		59.0 %	41-95		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		77.9 %	44-124		"	"	"	"	
Surrogate: Terphenyl-d14		60.0 %	42-127		"	"	"	"	

Waste Stream Technology Inc.

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Rick Elia Jr.

Reported:  
10/17/05 10:07

### Notes and Definitions

U Analyte included in the analysis, but not detected  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: E868  
Project Manager: Mike Crystal

Reported:  
09/30/05 16:43

### Notes and Definitions

U Analyte included in the analysis, but not detected  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

5707008

# CHAIN OF CUSTODY RECORD

[illegible]

LAB USE: REFRIGERATOR # \_\_\_\_\_ SHELF # \_\_\_\_\_

# BBL

ENVIRONMENTAL SERVICES, INC.

Remedial Action • Management and Construction

# Transmittal

KC 068

Transmitted via Hand Delivery

BBL Environmental Services, Inc.  
800 Weyrauch St., West Chicago, IL 60185  
Field Office No. : (630) 293-7695

To: Mark Krippel  
Tronox LLC  
800 Weyrauch Street  
West Chicago, IL 60185

Date: March 30, 2006

File: 71014.002  
Kress Creek Remedial Action, Reach 5A  
West Chicago, IL

We are sending you: ☒ herewith ☐ under separate cover  
☐ drawings ☐ letters ☐ other \_\_\_\_\_

If material received is not as listed, please notify us at once.

Quantity	Identifying Numbers #	Title	Action*
1	Sec 02200 2.1 C	Backfill Test RAD Report-Clay, Fill, River Rock	I
1	Sec 02200 2.1 C	Backfill Test Sieve Report-Clay & Fill	I
1	Sec 02200 2.1 C	Backfill Test Analytical Report (RCRA HAZ Characteristics) Clay & Fill	I
N/A	Sec 02200 1.6 C	Backfill Material Source (See Comments Below)	I

\*Action letter code: R - review N - reviewed and noted I - for your information  
S - resubmit J - rejected Y - for your approval

Comments: The source for Fill & Clay Backfill is Art Lofens & Son Inc. 0S551 Joliet Rd. West Chicago IL 60185

The source for River Rock Backfill is Earth Inc. 455 West Bartlett Rd. Bartlett IL 60103

Sincerely,

BBL ENVIRONMENTAL SERVICES, INC.

*Michael F. Savage*  
Michael F. Savage, P.E.  
Senior Engineer II

MFS/mfs  
Enclosures

cc: Mark Schmitt, Severson

03/30/06

C:\Documents and Settings\bwentzel\My Documents\Kress Creek\Transmittals\Backfill Testing Sec 02200, 3-30-06.doc  
K-M File # KC 6.2-1

Configuration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_RIVERROCK071405\_GE1\_FVSU\_88092.CNF;1

## ---- Sample Information ----

Sample Title : River Rock Earth Inc. Bartlett  
Sample ID : riverrock071405 Sample Quantity : 1.61000E+03 gram  
Sample Type : Dry weight Sample Geometry :  
Sample Number : 88092 Spectrm Collector : ROB MADDOX  
Analyzed By :

## ---- Sample Decay/Count Information ----

Sample Date : 14-JUL-2005 00:00:00 Acquisition date : 14-JUL-2005 12:41:17  
Decay time : 0 12:41:17.34 % dead time : 0.0%  
Elapsed live time: 0 00:45:00.00 Elapsed real time: 0 00:45:00.68

## ---- Detector Parameters ----

Energy cal. time : 9-FEB-2005 11:15:05. Energy cal. oper.: RAY LANCASTER  
Detector name : GE1 Counting geometry: FVSU  
Effic. cal. time : 9-FEB-2005 13:19:57. Effic. cal. oper.: RAY LANCASTER


## Combined Activity-MDA Report

## ---- Identified Nuclides ----

Nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
K-40	4.682E+00	6.711E-01	7.018E-02	7.194E-03	66.713
RA-226	1.778E-01	3.067E-02	7.096E-02	1.101E-02	2.505
U-238	3.176E-01	2.130E-01	3.184E-01	3.996E-02	0.997

## ---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity K.L. (pCi/gram) Ided	Act error	MDA (pCi/gram)	MDA error	Act/MDA
TH-232	1.438E-01 +	1.101E-01	1.201E-01	1.189E-02	1.197

 7-14-05

# Sewage Treatment Plant Samples

Date Samples Received: 10/15/04

Backfill Verification  
Dry Weight

*Looten's Clay (Offsite Borrow Source)*

Sample Location	U-238 in pCi/g	+ / - in pCi/g	Th-232 in pCi/g	+ / - in pCi/g	Ra-226 in pCi/g	+ / - in pCi/g	Total Uranium in pCi/g	Total Radium in pCi/g
WWTP-OS-101504-BF-2	1.1	0.5	0.8	0.2	0.8	0.1	2.2	1.6
WWTP-OS-101504-BF-2QC	< 1.0	na	0.7	0.1	0.5	0.1	< 2.0	1.3

All samples counted for 30 minutes

Reviewed

Date:

*10/15/04*

By:

*[Signature]*  
*B.F. Schneider*  
*10/15/2004*

nfiguration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_BF2\_GE1\_FVSU\_87781.CNF;1

## ---- Sample Information ----

Sample Title : WWTP-OS-101504  
Sample ID : BF-2 Sample Quantity : 1.30800E+03 gram  
Sample Type : Dry weight Sample Geometry :  
Sample Number : 87781 Spectrm Collector : RAY LANCASTER  
Analyzed By :

## ---- Sample Decay/Count Information ----

Sample Date : 15-OCT-2004 00:00:00 Acquisition date : 15-OCT-2004 10:49:27  
Delay time : 0 10:49:27.83 % dead time : 0.1%  
Elapsed live time: 0 00:30:00.00 Elapsed real time: 0 00:30:01.13

## ---- Detector Parameters ----

Energy cal. time : 21-JAN-2004 15:04:57 Energy cal. oper.: RAY LANCASTER  
Detector name : GE1 Counting geometry: FVSU  
Efficiency cal. time : 13-AUG-2004 10:37:00 Effic. cal. oper.: RAY LANCASTER

## Binned Activity-MDA Report

## - Identified Nuclides ----

Isotope	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
0	1.996E+01	2.464E+00	4.031E-01	4.183E-02	49.516
226	8.428E-01	9.697E-02	1.662E-01	2.567E-02	5.071
38	1.071E+00	5.093E-01	7.577E-01	8.695E-02	1.413

## - Non-Identified Nuclides ----

Isotope	Key-Line Activity (pCi/gram)	K.L. Ided	Act error	MDA (pCi/gram)	MDA error	Act/MDA
32	7.594E-01	+	2.184E-01	3.172E-01	3.112E-02	2.394

Reviewed

Date:

By:

10/15/04  
C. P. [Signature]  
B. L. [Signature]  
10/18/2004



Configuration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_BF2QC\_GE2\_FVSU\_87782.CNF;1

## ---- Sample Information ----

Sample Title : WWTP-OS-101504  
Sample ID : BF-2QC Sample Quantity : 1.24100E+03 gram  
Sample Type : Dry weight Sample Geometry :  
Sample Number : 87782 Spctrm Collector : RAY LANCASTER  
Analyzed By :

## ---- Sample Decay/Count Information ----

Sample Date : 15-OCT-2004 00:00:00 Acquisition date : 15-OCT-2004 10:50:40  
Delay time : 0 10:50:40.91 % dead time : 0.2%  
Elapsed live time: 0 00:30:00.00 Elapsed real time: 0 00:30:04.00

## ---- Detector Parameters ----

Energy cal. time : 22-JAN-2004 15:27:37 Energy cal. oper.: RAY LANCASTER  
Detector name : GE2 Counting geometry: FVSU  
Eff. cal. time : 13-AUG-2004 11:40:08 Eff. cal. oper.: RAY LANCASTER

## Combined Activity-MDA Report

## -- Identified Nuclides ----

Slide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
10	1.385E+01	1.787E+00	3.205E-01	3.308E-02	43.229
226	5.326E-01	7.869E-02	1.848E-01	2.784E-02	2.881
232	7.302E-01	1.355E-01	1.688E-01	1.653E-02	4.326
238	6.870E-01	4.971E-01	9.598E-01	1.151E-01	0.716

Reviewed

Date: 10/15/04

By: C. R. [Signature]  
BF [Signature]  
10/18/2004

# Sewage Treatment Plant Samples

File# KC 6.2-1  
STP 6.3

Date Samples Received: 10/15/04 AL FILL

Backfill Verification  
Dry Weight

Looten's Black Dirt (Offsite Borrow Source)

Sample Location	U-238 in pCi/g	+/- in pCi/g	Th-232 in pCi/g	+/- in pCi/g	Ra-226 in pCi/g	+/- in pCi/g	Total Uranium in pCi/g	Total Radium in pCi/g
VWTP-OS-101504-BF-1	0.5	0.3	0.7	0.1	0.5	0.1	1.0	1.1
VWTP-OS-101504-BF-1QC	0.9	0.5	0.9	0.2	0.9	0.1	1.9	1.7

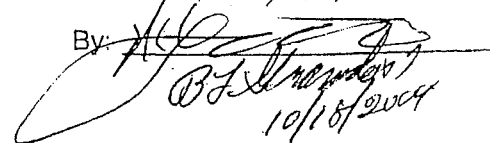
All samples counted for 30 minutes

Reviewed

Date:

10/15/04

By:

  
B. J. Thompson  
10/18/2004

Configuration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_BF1\_GE1\_FVSU\_87779.CNF;1

## ---- Sample Information ----

Sample Title : WWTP-OS-101504  
Sample ID : BF-1 Sample Quantity : 1.88700E+03 gram  
Sample Type : Dry weight Sample Geometry :  
Sample Number : 87779 Spctrm Collector : RAY LANCASTER  
Analyzed By :

## ---- Sample Decay/Count Information ----

Sample Date : 15-OCT-2004 00:00:00 Acquisition date : 15-OCT-2004 10:18:23  
Decay time : 0 10:18:23.07 % dead time : 0.1%  
Elapsed live time: 0 00:30:00.00 Elapsed real time: 0 00:30:00.97

## ---- Detector Parameters ----

Energy cal. time : 21-JAN-2004 15:04:57 Energy cal. oper.: RAY LANCASTER  
Detector name : GE1 Counting geometry: FVSU  
Effic. cal. time : 13-AUG-2004 10:37:00 Effic. cal. oper.: RAY LANCASTER

## Combined Activity-MDA Report

## ---- Identified Nuclides ----

Nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
40	1.020E+01	1.356E+00	2.870E-01	2.979E-02	35.528
226	4.548E-01	5.525E-02	1.018E-01	1.572E-02	4.470
232	6.827E-01	1.067E-01	8.212E-02	8.057E-03	8.314
238	5.086E-01	2.893E-01	4.504E-01	5.168E-02	1.129

Reviewed

Date:

10/15/04

By:

C. Lincage  
B. L. Lincage  
10/18/2004

onfiguration : DKA200:[GAMMA.SCUSR.ARCHIVE]SMP\_BF1QC\_GE1\_FVSU\_87783.CNF;1

## ---- Sample Information ----

ample Title : WWTP-OS-101504  
ample ID : BF-1QC Sample Quantity : 1.15000E+03 gram  
ample Type : Dry weight Sample Geometry :  
ample Number : 87783 Spctrm Collector : RAY LANCASTER  
nalyzed By :

## ---- Sample Decay/Count Information ----

ample Date : 15-OCT-2004 00:00:00 Acquisition date : 15-OCT-2004 11:38:39  
ecay time : 0 11:38:39.96 % dead time : 0.1%  
lapsed live time: 0 00:30:00.00 Elapsed real time: 0 00:30:01.05

## ---- Detector Parameters ----

nergy cal. time : 21-JAN-2004 15:04:57 Energy cal. oper.: RAY LANCASTER  
etector name : GE1 Counting geometry: FVSU  
ffic. cal. time : 13-AUG-2004 10:37:00 Effic. cal. oper.: RAY LANCASTER

## Combined Activity-MDA Report

## --- Identified Nuclides ---

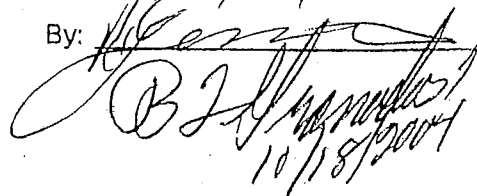
nuclide	Activity (pCi/gram)	Act error	MDA (pCi/gram)	MDA error	Act/MDA
-40	2.058E+01	2.570E+00	4.322E-01	4.486E-02	47.623
A-226	8.674E-01	1.049E-01	1.803E-01	2.785E-02	4.810
I-232	8.684E-01	1.704E-01	1.673E-01	1.642E-02	5.191
-238	9.257E-01	5.278E-01	8.308E-01	9.534E-02	1.114

Reviewed

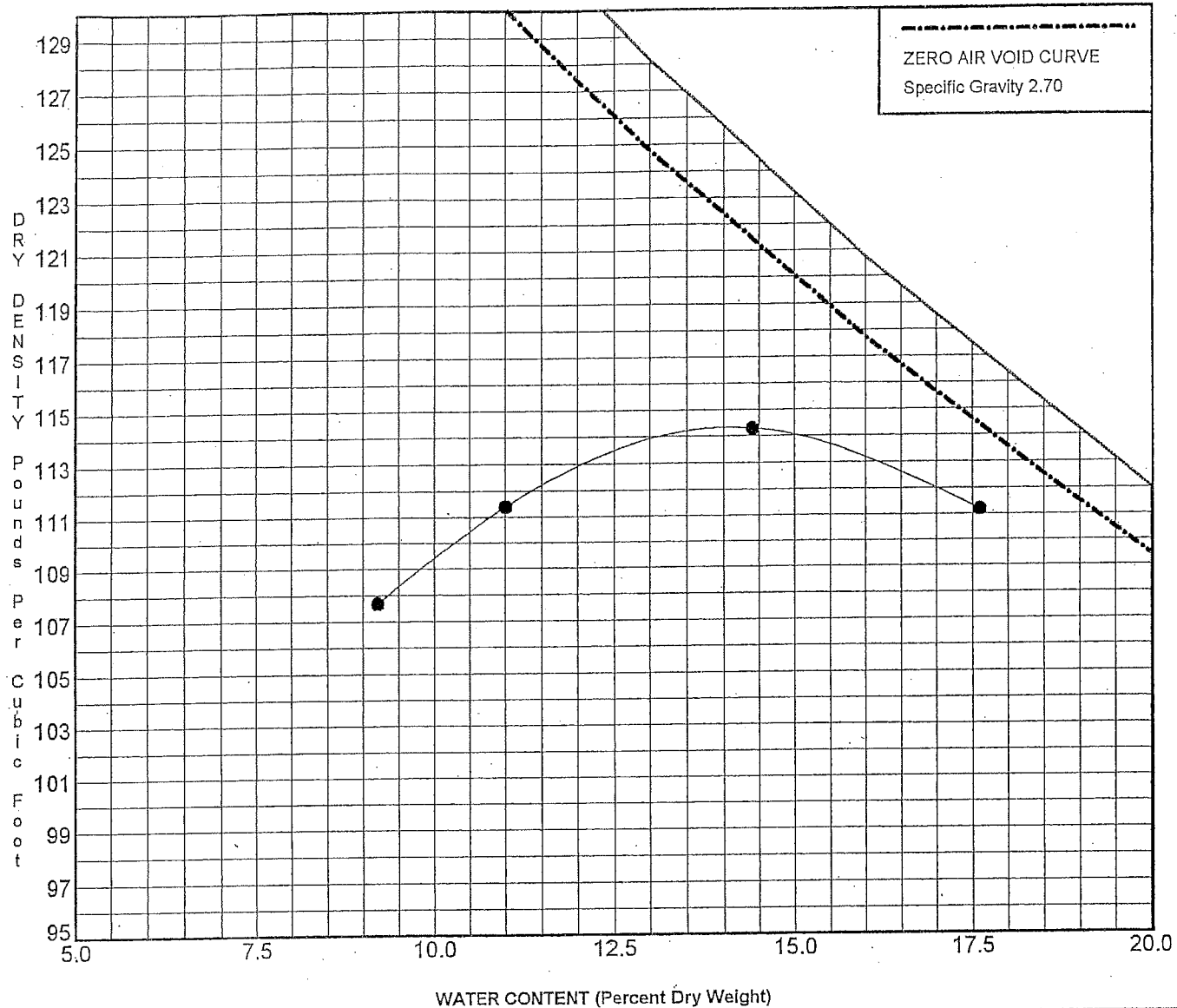
Date:

10/15/04

By:

  
10/18/2004





#### SPECIMEN IDENTIFICATION

AL Clay

#### SOIL CLASSIFICATION

Brown silty CLAY, little sand, trace gravel (CL)

#### MOISTURE/DENSITY RELATIONSHIP

☒ Standard ASTM D698/AASHTO T99  
☐ Modified ASTM D1557/AASHTO T180

Maximum Dry Density (PCF) 114.3

Optimum Water Content (%) 14.1

#### NOTES :

PROJECT Laboratory Testing-E818

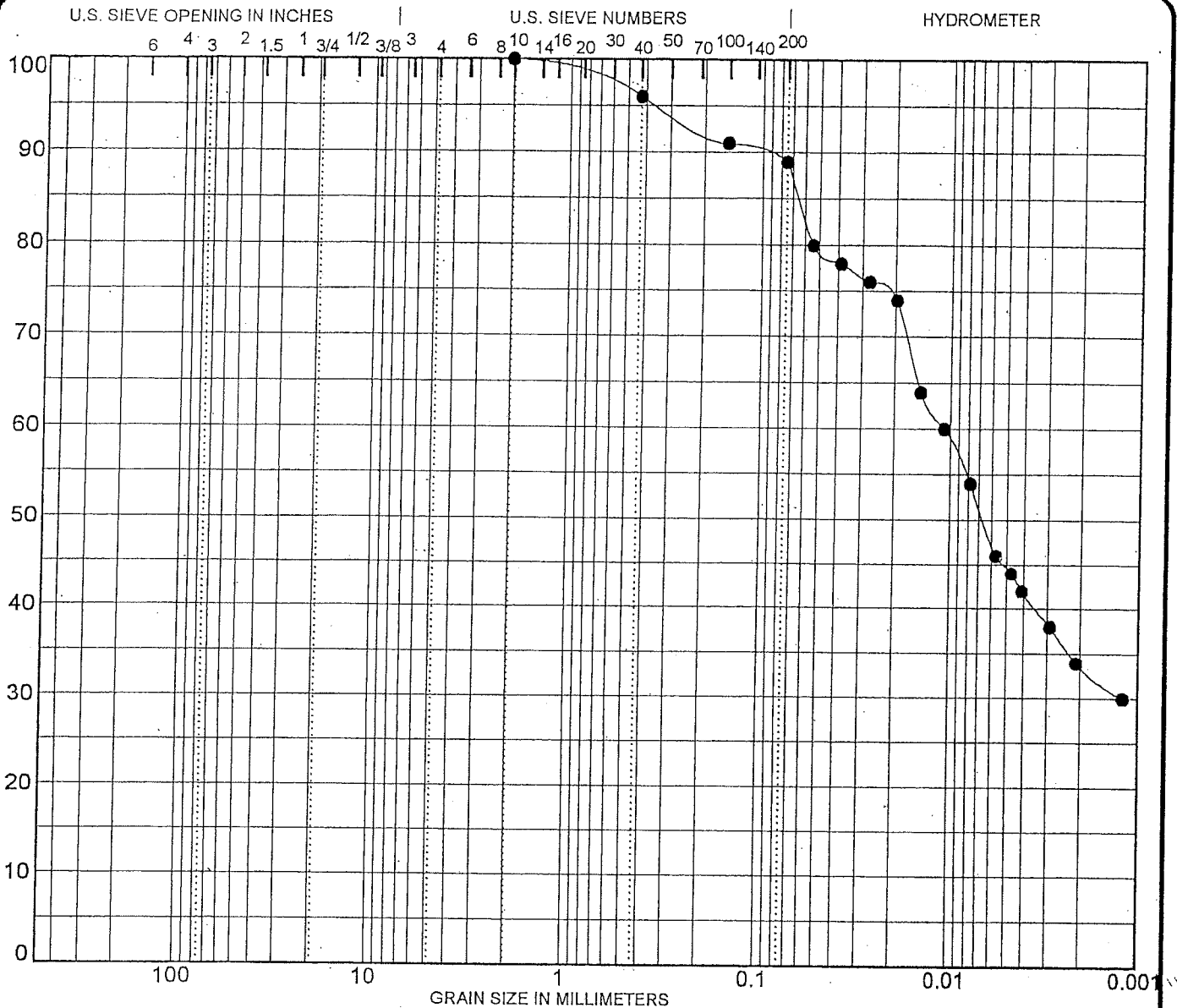
JOB NO. L - 62,079

LOCATION

DATE November 1, 2004

### MOISTURE-DENSITY RELATIONSHIP

Testing Service Corporation  
 Carol Stream, IL 60188



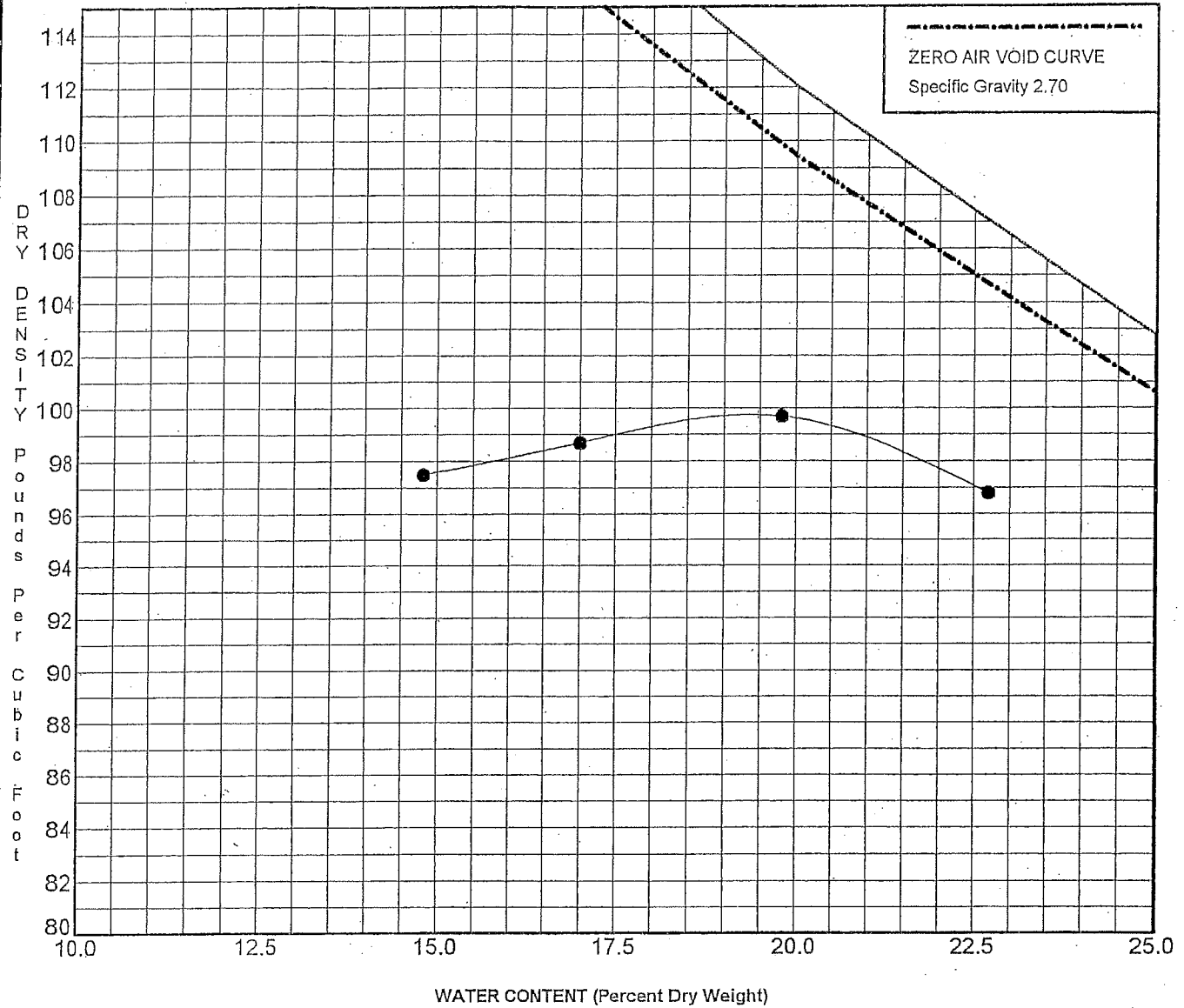
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

SPECIMEN IDENTIFICATION	SIEVE	% PASS	SOIL CLASSIFICATION				
AL Fill	3 inch	100	Dark brown and black silty CLAY, little sand				
	2	100	(CL)				
	1 1/2	100					
	1	100	%GRAVEL	%SAND	%SILT	%CLAY	
NOTES:	3/4	100	0	11	55	34	
	3/8	100					
	# 4	100			LL	PL	PI
	# 10	100			48	22	26
	# 40	96					
	# 100	91					
	# 200	89					

PROJECT Laboratory Testing-E818

JOB NO. L - 62,079  
DATE October 21, 2004

**SOIL DATA SHEET**  
Testing Service Corporation  
Carol Stream, IL 60188



#### SPECIMEN IDENTIFICATION

AL Fill

#### SOIL CLASSIFICATION

Dark brown and black silty CLAY, little sand (CL)

#### MOISTURE/DENSITY RELATIONSHIP

☒ Standard ASTM D698/AASHTO T99  
☐ Modified ASTM D1557/AASHTO T180

Maximum Dry Density (PCF) 99.8

Optimum Water Content (%) 19.4

#### NOTES :

PROJECT Laboratory Testing-E818

LOCATION

JOB NO. L - 62,079

DATE October 21, 2004

### MOISTURE-DENSITY RELATIONSHIP

Testing Service Corporation  
 Carol Stream, IL 60188



**WASTE STREAM TECHNOLOGY, INC.**


302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 10/29/04  
Work Order Number: 4J20005

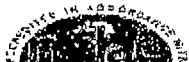
**Prepared For**  
Mike Crystal  
Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: Kerr McGee E818

Enclosed are the results of analyses for samples received by the laboratory on 10/20/04. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
\_\_\_\_\_  
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ALFILL	4J20005-01	Soil	10/18/04 14:30	10/20/04 09:30
ALCLAY	4J20005-02	Soil	10/18/04 14:35	10/20/04 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee B818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ALFILL (4J20005-01) Soil</b> Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
Mercury	ND	0.001	mg/L	1	AJ42712	10/27/04	10/28/04	EPA 7470A	
Silver	ND	0.025	"	5	AJ42505	10/25/04	10/25/04	6010B	
Arsenic	ND	0.045	"	"	"	"	"	"	
Barium	0.295	0.025	"	"	"	"	"	"	
Cadmium	ND	0.025	"	"	"	"	"	"	
Chromium	ND	0.025	"	"	"	"	"	"	
Lead	ND	0.075	"	"	"	"	"	"	
Selenium	ND	0.095	"	"	"	"	"	"	
<b>ALCLAY (4J20005-02) Soil</b> Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
Mercury	ND	0.001	mg/L	1	AJ42712	10/27/04	10/28/04	EPA 7470A	
Silver	ND	0.025	"	5	AJ42505	10/25/04	10/25/04	6010B	
Arsenic	ND	0.045	"	"	"	"	10/25/04	"	
Barium	0.508	0.025	"	"	"	"	10/25/04	"	
Cadmium	ND	0.025	"	"	"	"	10/25/04	"	
Chromium	ND	0.025	"	"	"	"	"	"	
Lead	ND	0.075	"	"	"	"	"	"	
Selenium	ND	0.095	"	"	"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kory McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ALFILL (4J20005-01) Soil</b> Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
vinyl chloride	ND	10	ug/l	1	AJ42503	10/25/04	10/25/04	8260	U
1,1-dichloroethene	ND	10	"	"	"	"	"	"	U
2-butanone	ND	100	"	"	"	"	"	"	U
chloroform	ND	10	"	"	"	"	"	"	U
carbon tetrachloride	ND	10	"	"	"	"	"	"	U
benzene	ND	10	"	"	"	"	"	"	U
1,2-dichloroethane	ND	10	"	"	"	"	"	"	U
trichloroethene	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	10	"	"	"	"	"	"	U
chlorobenzene	ND	10	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		89.3 %	77-118		"	"	"	"	
Surrogate: Toluene-d8		91.7 %	76-124		"	"	"	"	
Surrogate: Bromofluorobenzene		107 %	83-121		"	"	"	"	
<b>ALCLAY (4J20005-02) Soil</b> Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
vinyl chloride	ND	10	ug/l	1	AJ42503	10/25/04	10/25/04	8260	U
1,1-dichloroethene	ND	10	"	"	"	"	"	"	U
2-butanone	ND	100	"	"	"	"	"	"	U
chloroform	ND	10	"	"	"	"	"	"	U
carbon tetrachloride	ND	10	"	"	"	"	"	"	U
benzene	ND	10	"	"	"	"	"	"	U
1,2-dichloroethane	ND	10	"	"	"	"	"	"	U
trichloroethene	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	10	"	"	"	"	"	"	U
chlorobenzene	ND	10	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		94.3 %	77-118		"	"	"	"	
Surrogate: Toluene-d8		92.0 %	76-124		"	"	"	"	
Surrogate: Bromofluorobenzene		111 %	83-121		"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**TCLP Pesticides by EPA Method 1311/8080A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ALFILL (4J20005-01) Soil</b> Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	AJ42215	10/22/04	10/26/04	8081	U
Heptachlor	ND	0.040	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	U
Endrin	ND	0.040	"	"	"	"	"	"	U
Methoxychlor	ND	0.040	"	"	"	"	"	"	U
Chlordane	ND	0.800	"	"	"	"	"	"	U
Toxaphene	ND	1.00	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		99.0 %		67-123	"	"	"	"	
Surrogate: Decachlorobiphenyl		110 %		68-132	"	"	"	"	
<b>ALCLAY (4J20005-02) Soil</b> Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	AJ42215	10/22/04	10/26/04	8081	U
Heptachlor	ND	0.040	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	U
Endrin	ND	0.040	"	"	"	"	"	"	U
Methoxychlor	ND	0.040	"	"	"	"	"	"	U
Chlordane	ND	0.800	"	"	"	"	"	"	U
Toxaphene	ND	1.00	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		90.5 %		67-123	"	"	"	"	
Surrogate: Decachlorobiphenyl		100 %		68-132	"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lookport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**TCLP Herbicides by EPA Method 1311/8151A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ALFILL (4J20005-01) Soil</b> Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
2,4-D	ND	0.4	ug/l	1	AJ42708	10/27/04	10/27/04	8151	U
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	U
Surrogate: 2,4-DCPAA		100%	24-146		"	"	"	"	
<b>ALCLAY (4J20005-02) Soil</b> Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
2,4-D	ND	0.4	ug/l	1	AJ42708	10/27/04	10/27/04	8151	U
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	U
Surrogate: 2,4-DCPAA		84.0%	24-146		"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**TCLP Semivolatile Organic Compounds by EPA Method 1311/8270C**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ALFILL (4J20005-01) Soil</b> Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
pyridine	ND	8	ug/l	1	AJ42123	10/21/04	10/22/04	8270	U
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	U
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	U
hexachloroethane	ND	8	"	"	"	"	"	"	U
nitrobenzene	ND	8	"	"	"	"	"	"	U
hexachlorobutadiene	ND	8	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	U
hexachlorobenzene	ND	8	"	"	"	"	"	"	U
pentachlorophenol	ND	16	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol	29.6 %	22-57			"	"	"	"	
Surrogate: Phenol-d6	18.0 %	15-38			"	"	"	"	
Surrogate: Nitrobenzene-d5	58.5 %	45-106			"	"	"	"	
Surrogate: 2-Fluorobiphenyl	60.5 %	45-105			"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	72.6 %	45-119			"	"	"	"	
Surrogate: Terphenyl-d14	75.0 %	31-127			"	"	"	"	
<b>ALCLAY (4J20005-02) Soil</b> Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
pyridine	ND	8	ug/l	1	AJ42123	10/21/04	10/22/04	8270	U
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	U
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	U
hexachloroethane	ND	8	"	"	"	"	"	"	U
nitrobenzene	ND	8	"	"	"	"	"	"	U
hexachlorobutadiene	ND	8	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	U
hexachlorobenzene	ND	8	"	"	"	"	"	"	U
pentachlorophenol	ND	16	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol	29.2 %	22-57			"	"	"	"	
Surrogate: Phenol-d6	17.1 %	15-38			"	"	"	"	
Surrogate: Nitrobenzene-d5	67.8 %	45-106			"	"	"	"	
Surrogate: 2-Fluorobiphenyl	70.5 %	45-105			"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	75.2 %	45-119			"	"	"	"	
Surrogate: Terphenyl-d14	82.5 %	31-127			"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**Conventional Chemistry Parameters by ASTM Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ALFILL (4J20005-01) Soil Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
pH	7.04	0.10	pH Units	1	AJ42104	10/21/04	10/21/04	EPA 9045C	
ALCLAY (4J20005-02) Soil Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
pH	8.26	0.10	pH Units	1	AJ42104	10/21/04	10/21/04	EPA 9045C	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

**Physical Parameters by APHA/ASTM/EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>ALFILL (4J20005-01) Soil</b> Sampled: 10/18/04 14:30 Received: 10/20/04 09:30									
Ignitability by Flashpoint	>200		°F	1	AJ42103	10/21/04	10/21/04	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AJ42106	10/21/04	10/22/04	Section 7.3.3.2	
Reactive Sulfide	ND	40.0	"	"	AJ42107	10/21/04	10/25/04	Section 7.3.4.2	
<b>ALCLAY (4J20005-02) Soil</b> Sampled: 10/18/04 14:35 Received: 10/20/04 09:30									
Ignitability by Flashpoint	>200		°F	1	AJ42103	10/21/04	10/21/04	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AJ42106	10/21/04	10/22/04	Section 7.3.3.2	
Reactive Sulfide	ND	40.0	"	"	AJ42107	10/21/04	10/25/04	Section 7.3.4.2	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Seyenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Kerr McGee  
Project Number: Kerr McGee E818  
Project Manager: Mike Crystal

Reported:  
10/29/04 13:51

### Notes and Definitions

U Analyte included in the analysis, but not detected  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

**Appendix J**

Record Drawings



[illegible]

**RELEASED: MARCH 2008**  
**REVISED: AUGUST 2008**  
**REVISED: SEPTEMBER 2008**



DATE 9-12-08 BY M06

- A-1 TITLE SHEET
- B-1A SITE PLAN WITH WETLAND BOUNDARIES AND EXISTING TREES
- B-1B UPSTREAM OF REACH 1 SITE PLAN WITH WETLAND BOUNDARIES
- B-11 RESTORED CHANNEL PLAN AND PROFILE
- B-13 FINAL GRADING PLAN
- B-14 TYPICAL BANK RESTORATION CROSS SECTIONS AND APPLICATIONS
- B-15A VEGETATION RESTORATION PLAN
- B-15B UPSTREAM OF REACH 1 VEGETATION RESTORATION PLAN
- F-7 BRACED EXCAVATION PLAN
- F-8 EXCAVATION SHORING - SECTION 1
- F-9 EXCAVATION SHORING - SECTION 2
- F-10 EXCAVATION SHORING - SECTION 3
- F-11 EXCAVATION SHORING - SECTION 4
- F-12 DETAILS
- F-13 DETAILS AND SECTIONS

A-1

9/12/08 SYR-D85-DJH KLS  
30071024/0000/0022/CDR/REACH171024C01.CDR  
PDF VERSION PLOT AT 63%="D" SIZE

## LOCATION MAP



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XREFS: 71004X03  
IMAGES: 71004X03  
71004X11  
71024X01  
71024X02  
71024X03  
71024X04



- LEGEND:**
- LIMIT OF ACTUAL DISTURBANCE
  - REMOVAL AREA
  - REMOVAL AREA ADDRESSED AS A PART OF REACH 2 ACTIVITIES
  - FORESTED WETLANDS
  - EMERGENT WETLANDS
  - APPROXIMATE FLOODWAY
  - APPROXIMATE FLOODPLAIN
  - PROPERTY LINE
  - WETLAND BOUNDARY
  - LIMIT OF SURVEY
  - APPROXIMATE EDGE OF WATER (SEE NOTE 3)
  - 392 TREE LEFT IN PLACE
  - 393 TREE REMOVED DURING CONSTRUCTION
  - 394 SHRUB REMOVED DURING CONSTRUCTION
  - POST-CONSTRUCTION CONTOUR
  - PRE-CONSTRUCTION CONTOUR MINOR
  - PRE-CONSTRUCTION CONTOUR MAJOR

- NOTES:**
- BASE MAP PROVIDED BY KERR-McGEE CHEMICAL LLC (NOW KNOWN AS TRONOX) IN AN ARC VIEW PROJECT ENTITLED WEST CHICAGO KRESS CREEK. TOPOGRAPHIC LINES WITHIN THE LIMIT OF SURVEY LINES WERE DEVELOPED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.
  - TREE AND SHRUB NUMBERS RELATE TO TABLE B-2 OF THE FD/RA WORK PLAN.
  - EDGE OF WATER GENERATED FROM TOP AND TOE OF BANK INFORMATION COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.

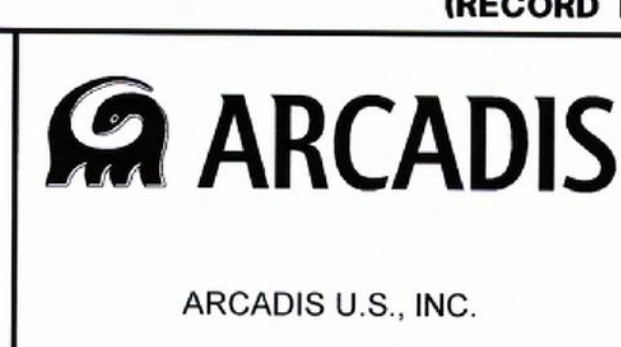
**RECORD DRAWINGS**  
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

DATE 3/13/08 BY MGA	Project No. B0071024.0000.00003
Date MARCH 2008	ARCADIS 6723 Towpath Road PO BOX 66 Syracuse, NY 13214.9154 315.446.9120
<b>B-1A</b>	



No.	Date	Revisions	MOG
1	03/13/08	RECORD DRAWINGS	MOG
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Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>	
Professional Engineer's No. 062059378	
State ILLINOIS	Date Signed 03/13/08
Project Mgr. MOG	Designed by ANE
	Drawn by NES



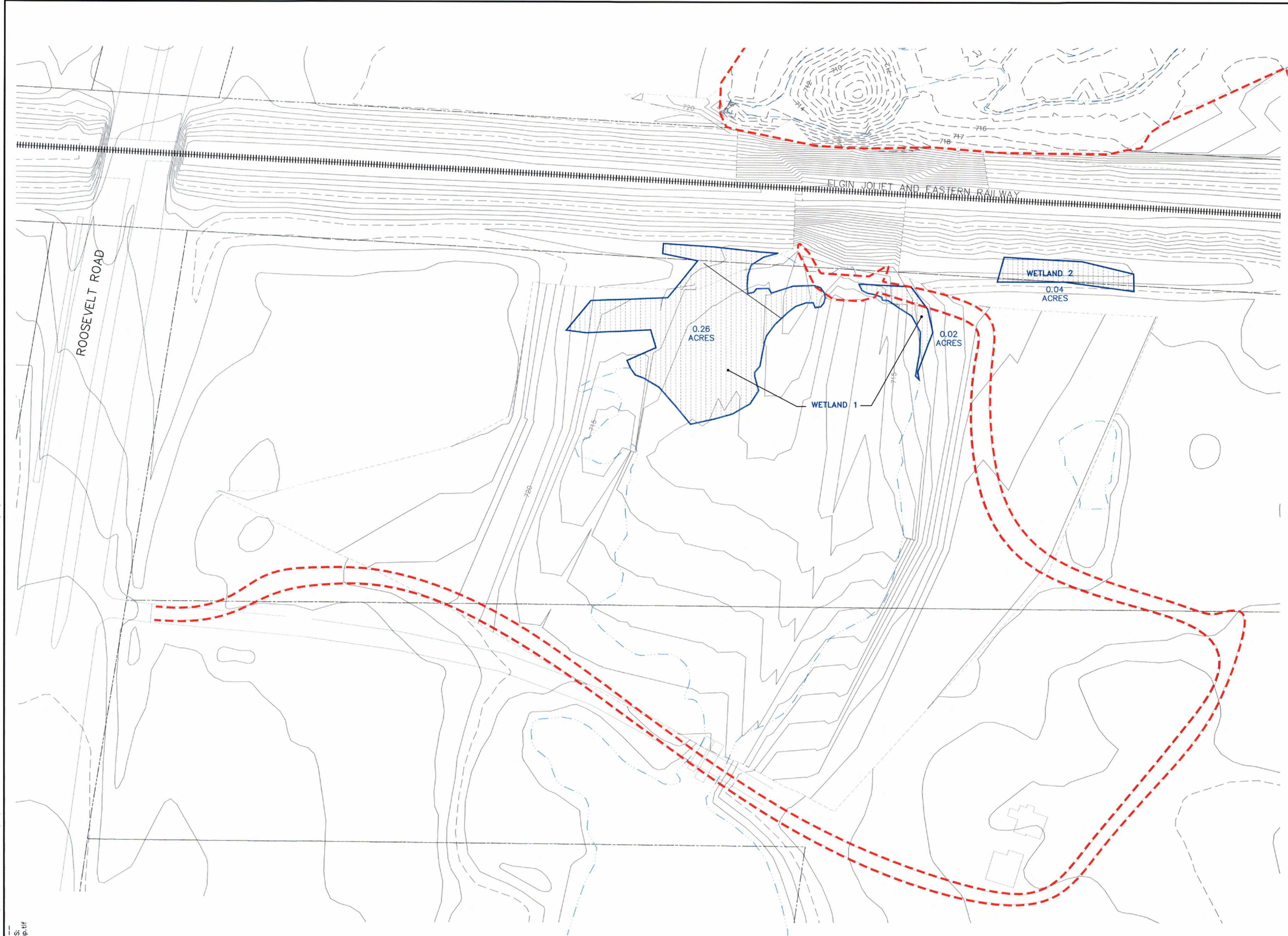
(RECORD DRAWING: MADE FROM DRAWING B-1A TRACER NO. 71004027/REACH1/EPA/71024G01.DWG, DATED 8/3/05)

TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 1

**SITE PLAN WITH WETLAND BOUNDARIES AND EXISTING TREES**



SYN-B5-NES KLS LAYER: ON=\*, OFF=REF\*  
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PENTABLE:PLT\B0071024\0000\00002\DWG\REACH\_1\71024G02.DWG PRINTED:3/13/2008 11:46 AM BY:KSARTORI



LEGEND:

- LIMIT OF ACTUAL DISTURBANCE
- EMERGENT WETLANDS
- PROPERTY LINE
- WETLANDS BOUNDARY
- LIMIT OF SURVEY
- APPROXIMATE EDGE OF WATER (SEE NOTE 2)
- POST-CONSTRUCTION CONTOUR
- PRE-CONSTRUCTION CONTOUR MINOR
- PRE-CONSTRUCTION CONTOUR MAJOR

NOTES:

- BASE MAP PROVIDED BY KERR-McGEE CHEMICAL LLC (NOW KNOWN AS TRONOX) IN AN ARC VIEW PROJECT ENTITLED WEST CHICAGO KRESS CREEK. TOPOGRAPHIC LINES WITHIN THE LIMIT OF SURVEY LINES WERE DEVELOPED BY ARCADIS FROM SURVEY DATA COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.
- EDGE OF WATER GENERATED FROM TOP AND TOE OF BANK INFORMATION COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.

RECORD DRAWINGS  
TO THE BEST OF OUR KNOWLEDGE,  
INFORMATION AND BELIEF, THESE RECORD  
DRAWINGS SUBSTANTIALLY REPRESENT THE  
PROJECT AS CONSTRUCTED.

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DATE: 3/13/08 BY: NES

Graphic Scale  
1"=40'  
0 40' 80'

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No.		Date		Revisions	
1		03/13/08		RECORD DRAWINGS	

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Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>	
Professional Engineer's No. 062059378	
State ILLINOIS	Date Signed 03/13/08
Project Mgr. MOG	Designed by ANE
	Drawn by NES



**ARCADIS**  
ARCADIS U.S., INC.

TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 1  
**UPSTREAM OF REACH 1**  
**SITE PLAN WITH WETLAND BOUNDARIES**

Project No. B0071024.0000.00003	<b>B-1B</b>
Date MARCH 2008	
ARCADIS 6723 Towpath Road PO BOX 66 Syracuse, NY 13214.9154 315.446.9120	





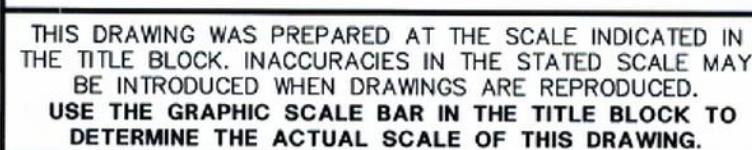
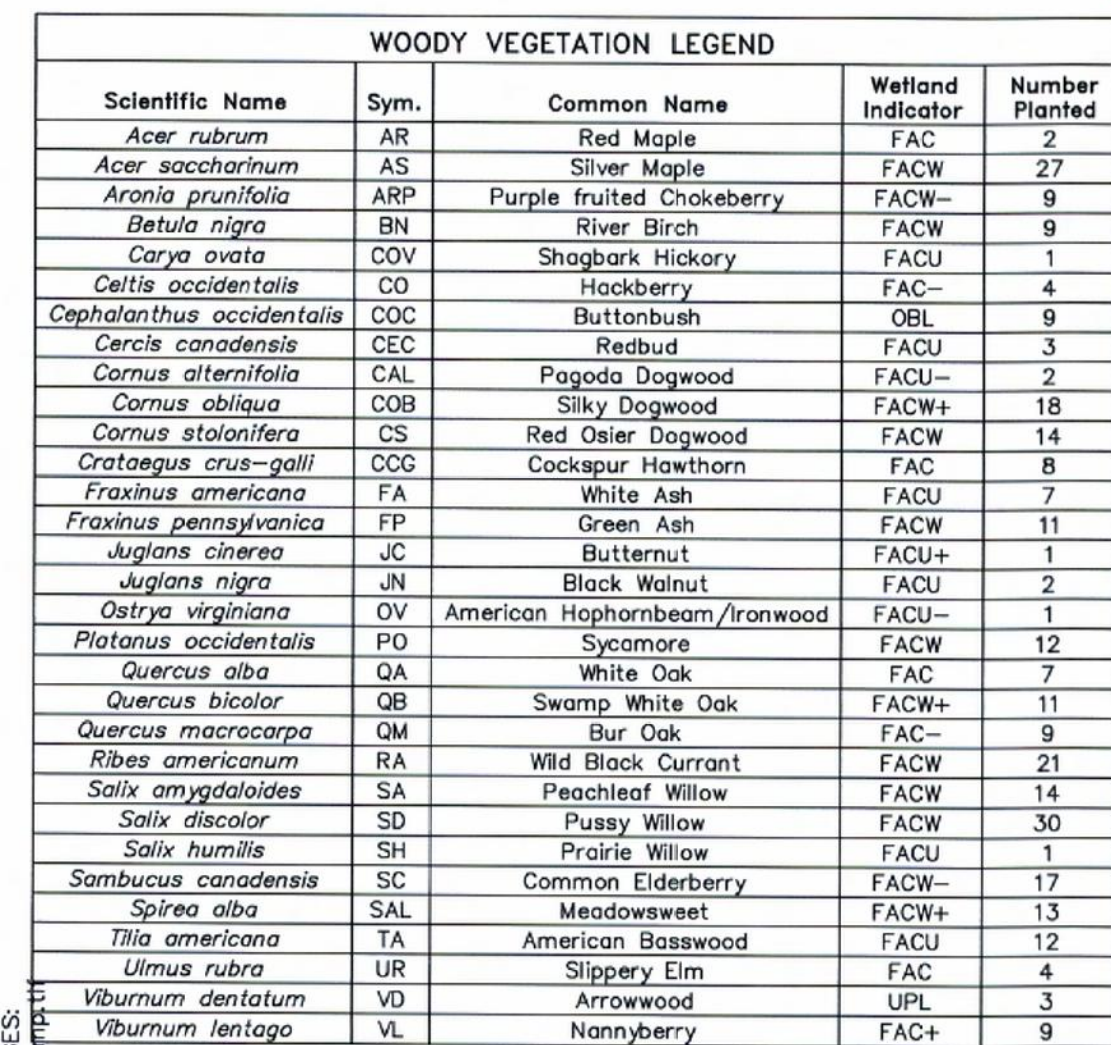












Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>		
Professional Engineer's No. <b>062059378</b>		
State <b>ILLINOIS</b>	Date Signed <b>03/13/08</b>	
Project Mgr. <b>MOG</b>	Designed by <b>ANF</b>	Drawn by <b>NFS</b>



# VEGETATION RESTORATION PLAN

DATE 3/13/08 BY NM

Project No. B0071024.0000.00003
Date MARCH 2008
ARCADIS 6723 Towpath Road PO BOX 66 Syracuse, NY 13214.9154 315.446.9120

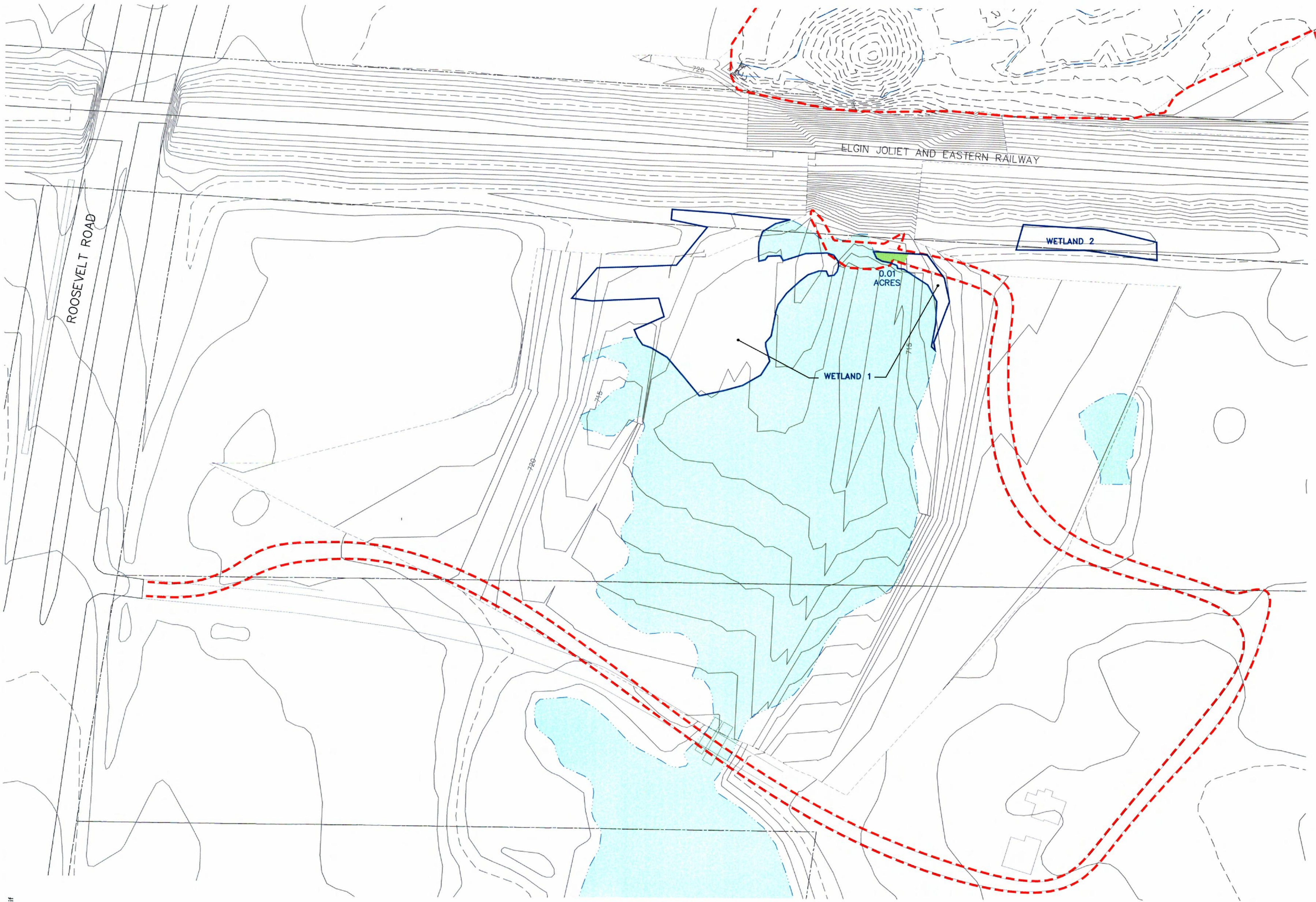
**B-15A**

**RECORD DRAWINGS**  
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DRAWINGS SUBSTANTIALLY REPRESENT THE  
PROJECT AS CONSTRUCTED.

(RECORD DRAWING: MADE FROM DRAWING B-15A TRACER NO. 71004027/REACH1/EPA/71024G14.DWG, DATED 8/3/05)

DATE 3/13/08 BY NM





- LEGEND:**
- LIMIT OF ACTUAL DISTURBANCE
  - RESTORED EMERGENT WETLANDS SEEDING PER TABLE 1
  - PROPERTY LINE
  - LIMIT OF SURVEY
  - APPROXIMATE EDGE OF WATER (SEE NOTE 4)
  - POST-CONSTRUCTION CONTOUR
  - PRE-CONSTRUCTION CONTOUR MINOR
  - PRE-CONSTRUCTION CONTOUR MAJOR
  - WETLANDS BOUNDARY

- NOTES:**
- FINAL GRADES ARE SHOWN ON DRAWING B-13.
  - BASE MAP PROVIDED BY KERR-McGEE CHEMICAL LLC (NOW KNOWN AS TRONOX) IN AN ARC VIEW PROJECT ENTITLED WEST CHICAGO KRESS CREEK. TOPOGRAPHIC LINES WITHIN THE LIMIT OF SURVEY LINES WERE DEVELOPED BY ARCADIS FROM SURVEY DATA COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.
  - LOCATION OF HAUL ROAD IS BASED ON GENERAL FIELD RECONNAISSANCE AND SHOULD BE CONSIDERED APPROXIMATE. THE HAUL ROAD WILL BE CONSTRUCTED IN THE FIELD BASED ON CONDITIONS ENCOUNTERED.
  - EDGE OF WATER GENERATED FROM TOP AND TOE OF BANK INFORMATION COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.

TABLE 1 Open Floodplain Seeding		
Lbs./Acre	Species	Common Name
2.7	<i>Andropogon gerardii</i>	Big Bluestem
2.75	<i>Andropogon scoparius</i>	Little Bluestem
0.16	<i>Aster novae-angliae</i>	New England Aster
0.15	<i>Bidens cernua</i>	Beggar Ticks
2.7	<i>Calamagrostis canadensis</i>	Blue Joint Grass
0.14	<i>Carex vulpinoidea</i>	Fox Sedge
1.3	<i>Echinacea pallida</i>	Pale Purple Coneflower
2.7	<i>Elymus canadensis</i>	Wild Rye
0.28	<i>Eupatorium maculatum</i>	Spotted Joe Pye Weed
0.28	<i>Eupatorium perfoliatum</i>	Boneset
3.2	<i>Glyceria striata</i>	Fowl Manna Grass
1.6	<i>Panicum virgatum</i>	Switchgrass
0.17	<i>Pycnanthemum virginianum</i>	Mountain Mint
1.05	<i>Rudbeckia hirta</i>	Black-Eyed Susan
0.28	<i>Silphium laciniatum</i>	Compass Plant
0.28	<i>Silphium terebinthaceum</i>	Prairie Dock
0.25	<i>Solidago rigida</i>	Rigid Goldenrod
Cover crop: Annual Rye @ 3 lbs. per acre		

- NOTES:**
- SEED APPLIED AT RATE OF 20 LBS. PER ACRE PLUS COVER CROP AS PRIMARY VEGETATION, 10 LBS. PER ACRE PLUS COVER CROP WHEN PLANTED AS UNDERSTORY.
  - THE ABOVE LIST OF PLANT SPECIES HAVE BEEN SELECTED TO PROVIDE AN APPROPRIATE SEED MIX FOR A NUMBER OF POTENTIAL ENVIRONMENTS IN A BROAD SPECTRUM APPROACH. IT IS NOT ANTICIPATED THAT ALL SPECIES WOULD BE APPROPRIATE FOR ALL MICRO-HABITATS.

**RECORD DRAWINGS**  
TO THE BEST OF OUR KNOWLEDGE,  
INFORMATION AND BELIEF, THESE RECORD  
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PROJECT AS CONSTRUCTED.

(RECORD DRAWING: MADE FROM DRAWING B-15B TRACER NO. 71004027/REACH1/EPA/71024G06.DWG, DATED 8/3/05)

DATE 3/13/08 BY M.O.G.

Graphic Scale  
1"=40'  
0 40' 80'

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Professional Engineer's Name  
**MARK OWEN GRAVELDING**  
Professional Engineer's No.  
062059378  
State  
ILLINOIS  
Date Signed  
03/13/08  
Project Mgr.  
MOG  
Designed by  
ANE  
Drawn by  
NES



ARCADIS U.S., INC.

TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 1  
**UPSTREAM OF REACH 1  
VEGETATION RESTORATION PLAN**

Project No.  
B0071024.0000.00003  
Date  
MARCH 2008  
ARCADIS  
6723 Towpath Road  
PO BOX 66  
Syracuse, NY 13214.9154  
315.446.9120

**B-15B**



LAYER: ON=\*, OFF=REF\*  
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SAVED:3/13/2008 11:52 AM LAYOUT:F-7 PAGESETUP:-----

PROJECTNAME:-----  
XREFS:-----  
SHEETS: 1  
71004X01  
71004X02  
71004X03  
71024R01  
71024X00



		</				

Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>		
Professional Engineer's No. 062059378		
State ILLINOIS	Date Signed 03/13/08	
Project Mgr. MOG	Designed by PAB	Drawn by GMS



(RECORD DRAWING: MADE FROM DRAWING F-7 TRACER NO. 71004027/REACH1/71024G15.DWG, DATED 7/1/05)

TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN – REACH 1

## BRACED EXCAVATION PLAN

### LEGEND:

- PROPERTY LINE
- TEMPORARY SHEET PILING
- PERMANENT SHEET PILING
- APPROXIMATE EDGE OF WATER (SEE NOTE 2)
- EXCAVATION LIMITS
- 715 PRE-CONSTRUCTION GRADE

### NOTES:

- BASE MAP PROVIDED BY KERR-McGEE CHEMICAL LLC (NOW KNOWN AS TRONOX) IN AN ARC VIEW PROJECT ENTITLED WEST CHICAGO KRESS CREEK. TOPOGRAPHIC LINES WITHIN THE LIMIT OF SURVEY LINES WERE DEVELOPED BY ARCADIS FROM SURVEY DATA COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.
- EDGE OF WATER GENERATED FROM TOP AND TOE OF BANK INFORMATION COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.

**RECORD DRAWINGS**  
TO THE BEST OF OUR KNOWLEDGE,  
INFORMATION AND BELIEF, THESE RECORD  
DRAWINGS SUBSTANTIALLY REPRESENT THE  
PROJECT AS CONSTRUCTED.

DATE 3/13/08 BY MOK

Project No.  
B0071024.0000.00003

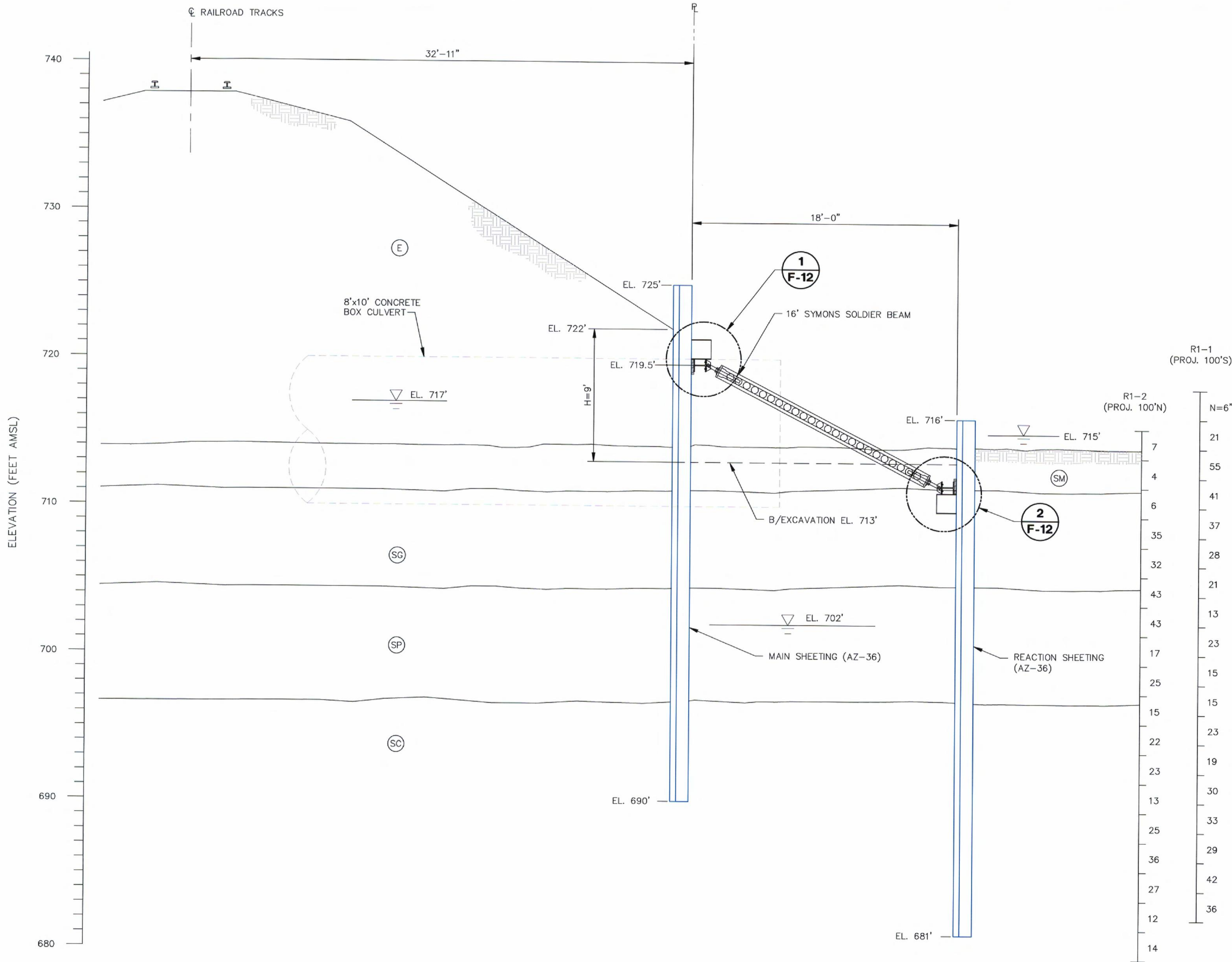
Date  
MARCH 2008

ARCADIS  
6723 Towpath Road  
P.O. BOX 66  
Syracuse, NY 13214.9154  
315.446.9120

F-7

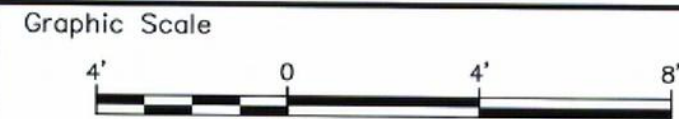


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### SECTION 1

SCALE: SEE GRAPHIC SCALE BAR



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RECORD DRAWINGS  
No. 03/13/08  
Date 03/13/08  
Revisions  
MOG Init  
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Professional Engineer's Name  
**MARK OWEN GRAVELDING**  
Professional Engineer's No.  
062059378  
State  
ILLINOIS  
Date Signed  
03/13/08  
Project Mgr.  
MOG  
Designed by  
PAB  
Drawn by  
GMS



ARCADIS U.S., INC.

(RECORD DRAWING: MADE FROM DRAWING F-8 TRACER NO. 71004027/CONTRACT/REV001/71004G08.DWG, DATED 6/20/05)

TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 1

## EXCAVATION SHORING - SECTION 1

RECORD DRAWINGS  
TO THE BEST OF OUR KNOWLEDGE,  
INFORMATION AND BELIEF, THESE RECORD  
DRAWINGS SUBSTANTIALLY REPRESENT THE  
PROJECT AS CONSTRUCTED.

DATE 3/13/08 BY M06

Project No.  
B0071024.0000.00003

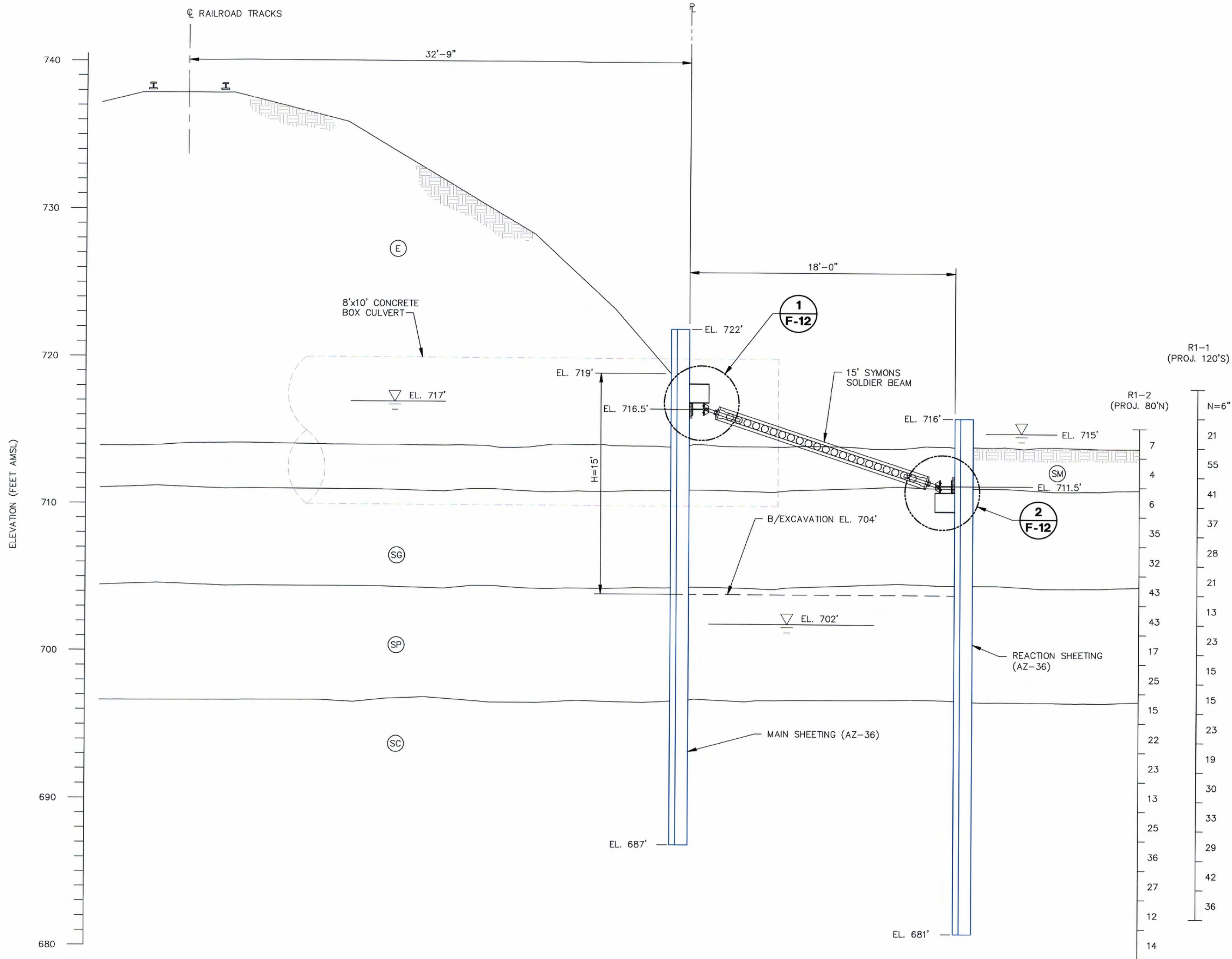
Date  
MARCH 2008

ARCADIS  
6723 Towpath Road  
PO BOX 66  
Syracuse, NY 13214.9154  
315.446.9120

F-8



SVR-85-QUS T.B. KLS LAYER: ON-\*, QTE-REF- PENTABLE: PLTULL CTB PRINTED: 3/13/2008 11:54 AM BY: KSARTORI  
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PROJECT NAME: -----  
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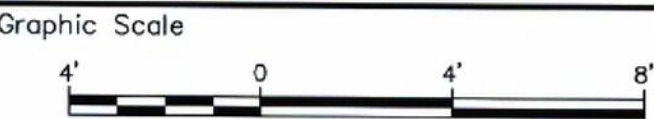
## SECTION 2

SCALE: SEE GRAPHIC SCALE BAR

(RECORD DRAWING: MADE FROM DRAWING F-9 TRACER NO. 71004027/CONTRACT/REV001/71004G09.DWG, DATED 7/1/05)

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DATE 3/13/08 BY MOZ



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Professional Engineer's Name  
**MARK OWEN GRAVELDING**  
Professional Engineer's No.  
062059378  
State  
ILLINOIS  
Date Signed  
03/13/08  
Project Mgr.  
MOG  
Designed by  
PAB  
Drawn by  
GMS



**ARCADIS**

ARCADIS U.S., INC.

TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE  
RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 1

## EXCAVATION SHORING - SECTION 2

Project No.  
B0071024.0000.00003

Date  
MARCH 2008

ARCADIS  
6723 Towpath Road  
PO BOX 66  
Syracuse, NY 13214.9154  
315.446.9120

**F-9**









**(RECORD DRAWING: MADE FROM DRAWING F-11 TRACER NO. 71004027/CONTRACT/REV001/71004G16.DWG, DATED 7/1/05)**

DATE 3/13/08 BY MO/7

MEAN WATER LEVEL

R2-1 ← GEOTECHNICAL BORING IDENTIFICATION

N=7 ← SPT N-VALUE

← BOTTOM OF SAMPLE INTERVAL

4 ← BOTTOM OF BORING

(E)	EMBANKMENT FILL
(SM)	LOOSE TO MEDIUM DENSE FINE SAND, LITTLE TO SOME CLAYEY SILT, TRACE TO LITTLE ORGANICS (PEAT), TRACE TO LITTLE FINE GRAVEL
(SG)	BROWN MEDIUM DENSE TO DENSE FINE TO COARSE SAND AND GRAVEL, TRACE TO LITTLE SILT
(SP)	BROWN MEDIUM DENSE TO DENSE FINE SAND, LITTLE TO SOME SILT, LITTLE FINE TO MEDIUM GRAVEL
(SC)	VARIES FROM MEDIUM DENSE TO DENSE GREY CLAYEY FINE SAND, LITTLE SILT TO FINE SAND AND CLAY


1. STRATIGRAPHY BASED ON BORING R1-2.
2. COOPER E80 LIVE LOAD APPLIED TO RAILROAD TRACKS.
3. IMPACT LOAD EQUIVALENT TO 30% OF COOPER E80 LIVE LOAD APPLIED TO TRACKS
4. AFTER BACKFILLING EXCAVATION TO ORIGINAL GRADE, STRUTS WERE REMOVED AND MAIN SHEETING WAS CUT FLUSH WITH GROUND SURFACE. MAIN SHEETING TO REMAIN IN PLACE PERMANENTLY.
5. SPT N-VALUE IS THE NUMBER OF HAMMER BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SOIL SAMPLER 12" IN ACCORDANCE WITH THE ASTM D1586 TEST PROCEDURE.

TO THE BEST OF OUR KNOWLEDGE,  
INFORMATION AND BELIEF, THESE RECORD  
DRAWINGS SUBSTANTIALLY REPRESENT THE  
PROJECT AS CONSTRUCTED.

Project No. B0071024.0000.00003	<b>F-</b>
Date MARCH 2008	
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**F-11**

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Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>		
Professional Engineer's No. <b>062059378</b>		
State <b>ILLINOIS</b>	Date Signed <b>03/13/08</b>	
Project Mgr. <b>MOC</b>	Designed by <b>DAB</b>	Drawn by <b>CMS</b>



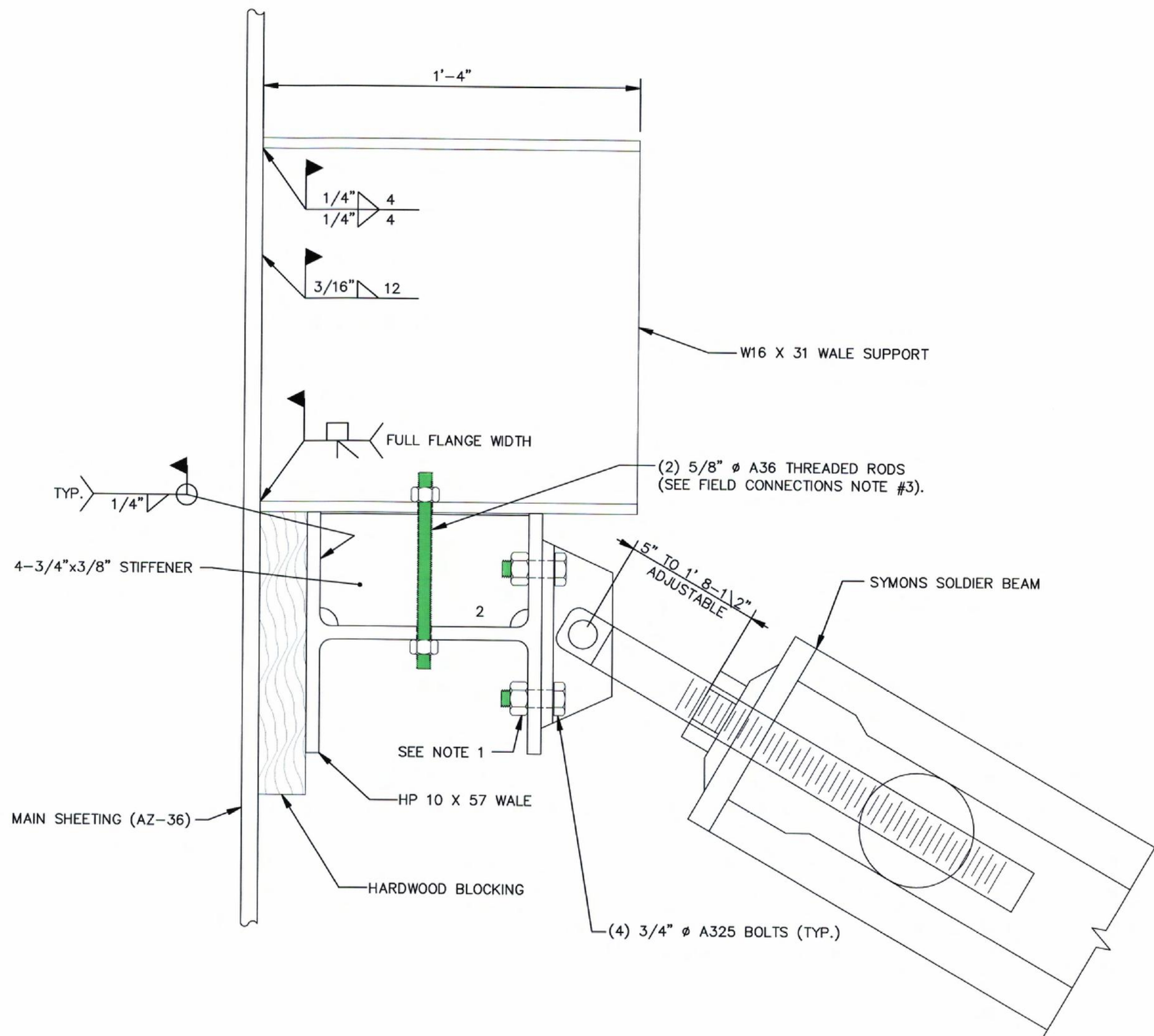
ARCADIS U.S., INC.

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RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN – REACH 1

**EXCAVATION SHORING - SECTION 4**



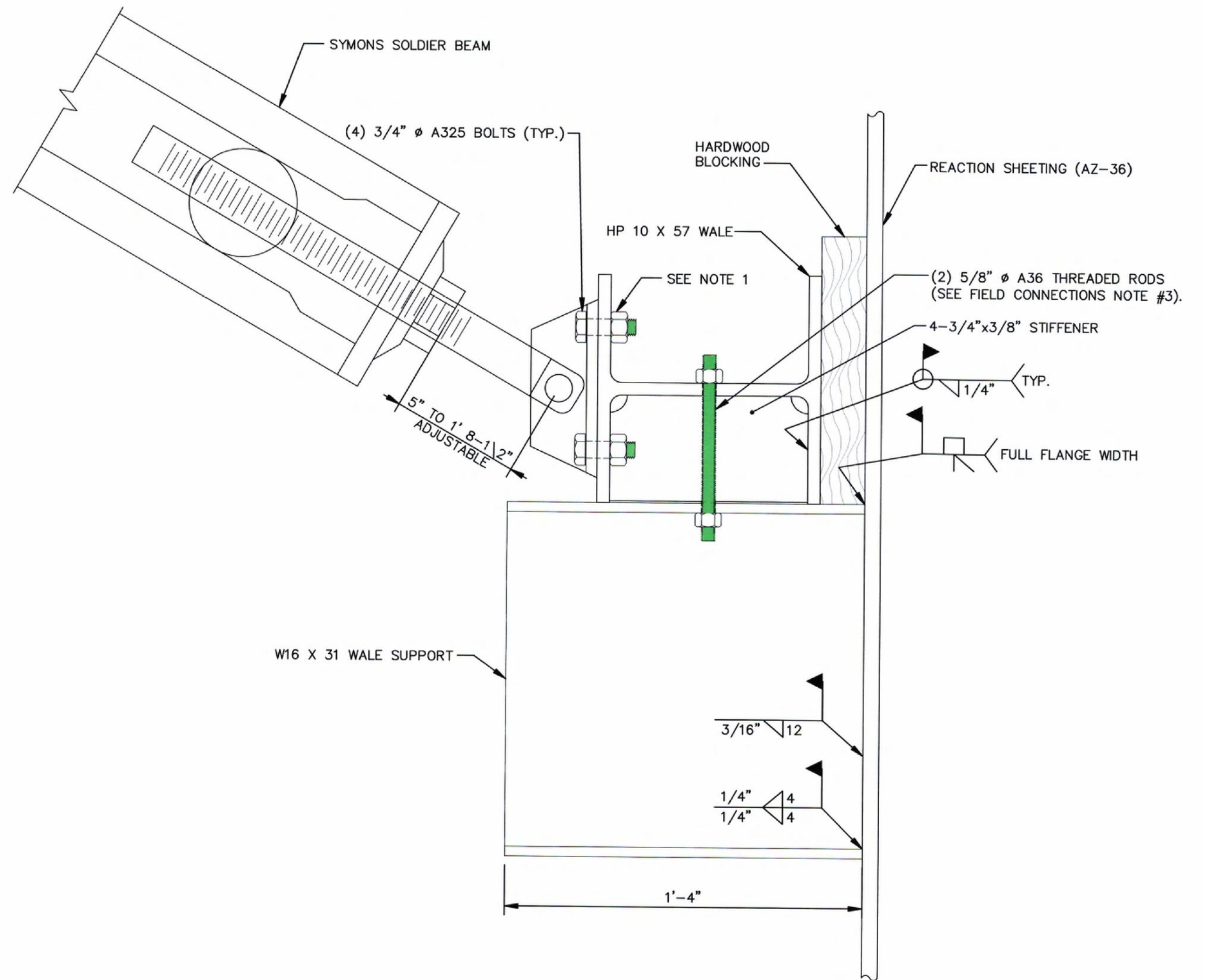
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PROJECTNAME:-----  
XREFS: IMAGES: 71024x00 stamp.tif



**DETAIL 1**  
SCALE: 1/4" = 1"

**GENERAL NOTES:**

1. ALL STRUCTURAL STEEL GR50. STIFFENER PLATES WITH A MINIMUM YIELD STRESS OF 36 KSI WAS USED.
2. HARDWOOD BLOCKING ARE FULL WIDTH ACROSS WALE SUPPORTS.
3. CENTER STIFFENER PLATES CENTERED WITHIN BOLT BATTERN AT EACH INDIVIDUAL STRUT LOCATION.



**DETAIL 2**  
SCALE: 1/4" = 1"

**RECORD DRAWINGS**  
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DATE: 3/13/08 BY: M16

Graphic Scale			
AS NOTED			
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Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>		
Professional Engineer's No. 062059378		
State ILLINOIS	Date Signed 03/13/08	
Project Mgr. MOC	Designed by PAB	Drawn by GMS



TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN – REACH 1

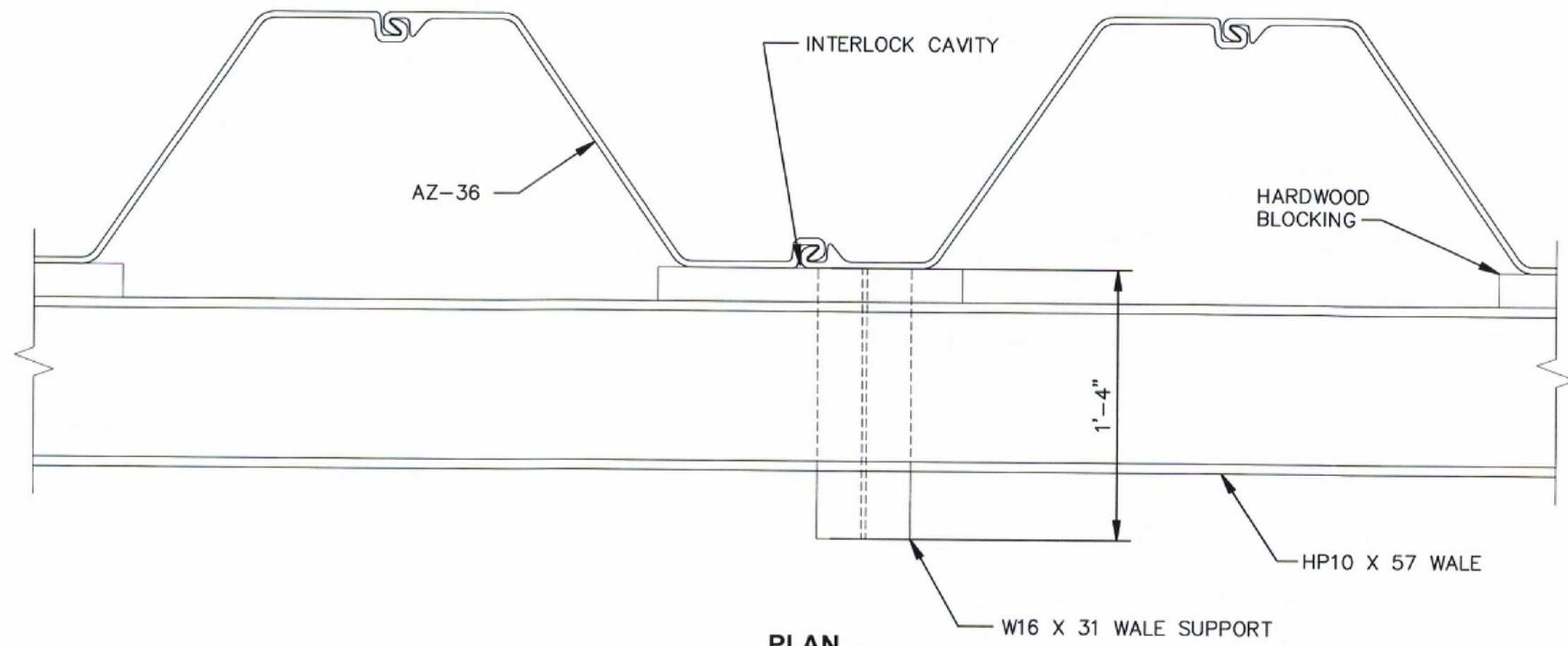
**DETAILS**

Project No. B0071024.0000.00003
Date MARCH 2008
ARCADIS 6723 Towpath Road PO BOX 66 Syracuse, NY 13214.9154 315.446.9120

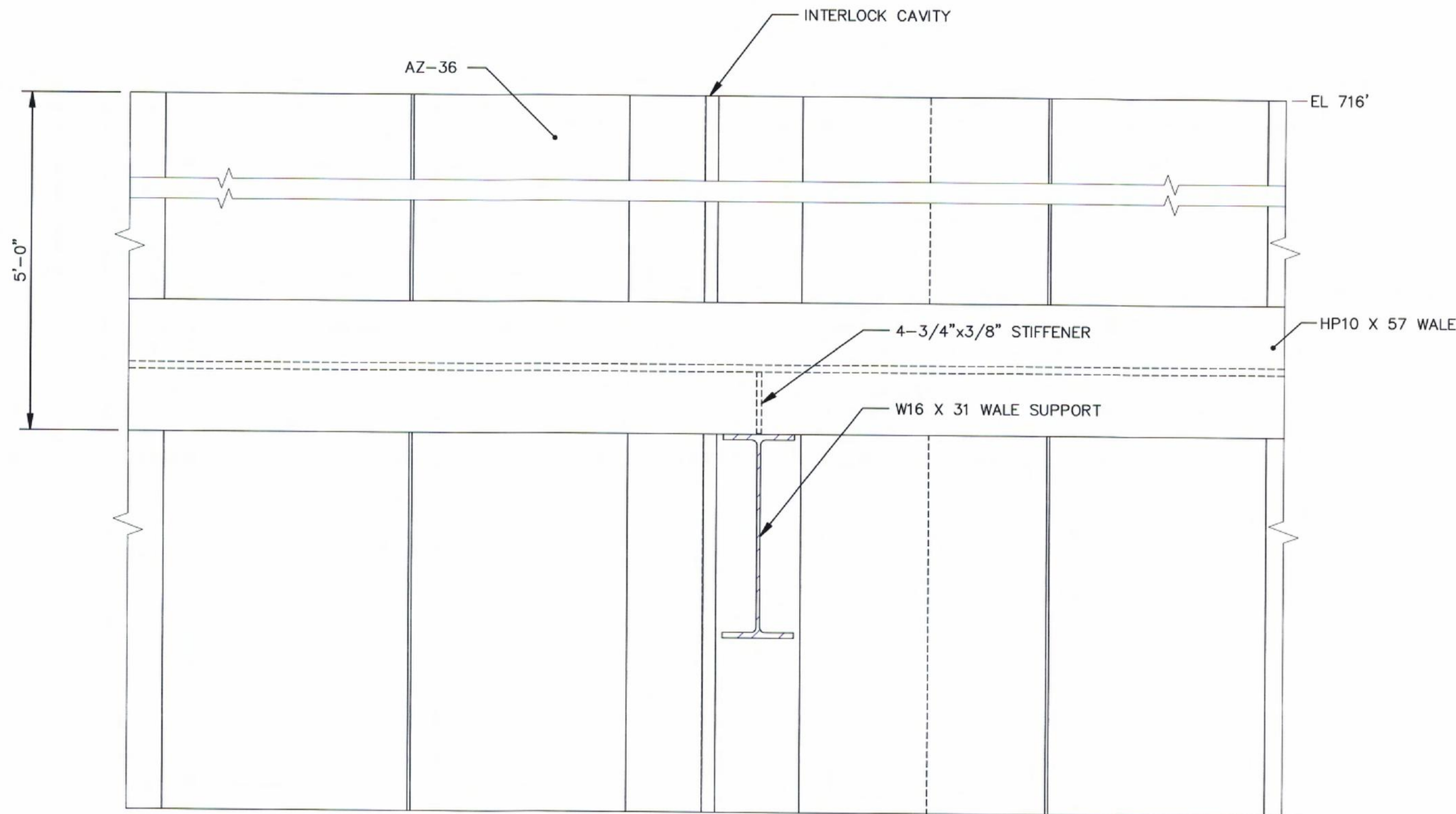
**F-12**



SVR-85-LAF T.B. KLS LAYER: ON=\*, OFF=REF\* G:\CAD\ACT\B0071024\0000\00002.DWG REACH\_1\71024S02.DWG PRINTED: 3/13/2008 11:57 AM BY: KSARTORI  
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PLAN

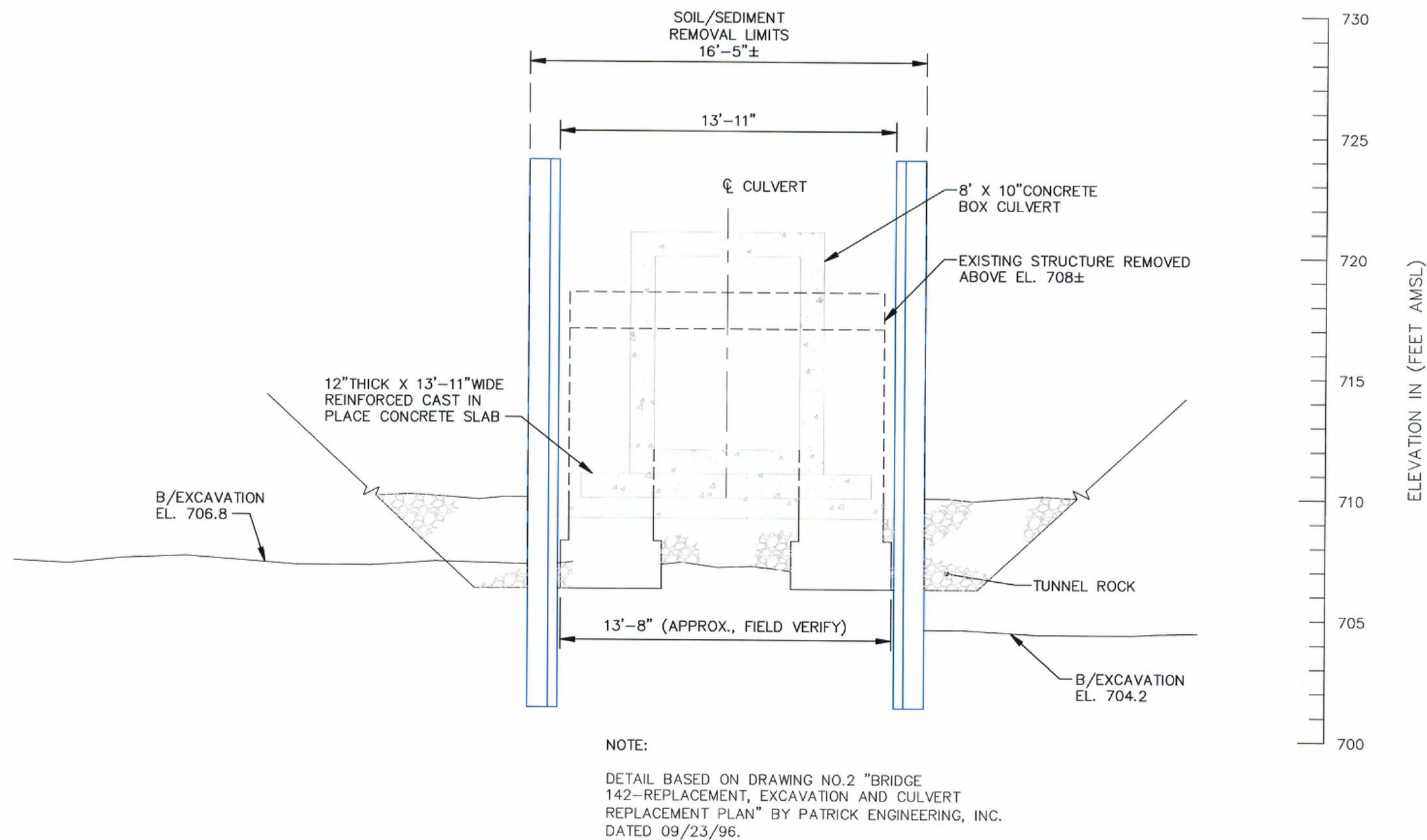


PROFILE

DETAIL

3

SCALE: 1-1/2" = 1'-0"



NOTE:

DETAIL BASED ON DRAWING NO.2 "BRIDGE 142-REPLACEMENT, EXCAVATION AND CULVERT REPLACEMENT PLAN" BY PATRICK ENGINEERING, INC. DATED 09/23/96.

BOX CULVERT SECTION

4

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DATE 3/13/08 BY MOC

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F-13

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RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 1

## DETAILS AND SECTIONS



ARCADIS U.S., INC.



Professional Engineer's Name  
**MARK OWEN GRAVELDING**

Professional Engineer's No.  
062059378

State  
ILLINOIS

Date Signed  
03/13/08

Project Mgr.  
MOC

Designed by  
PAB

Drawn by  
GMS

Graphic Scale  
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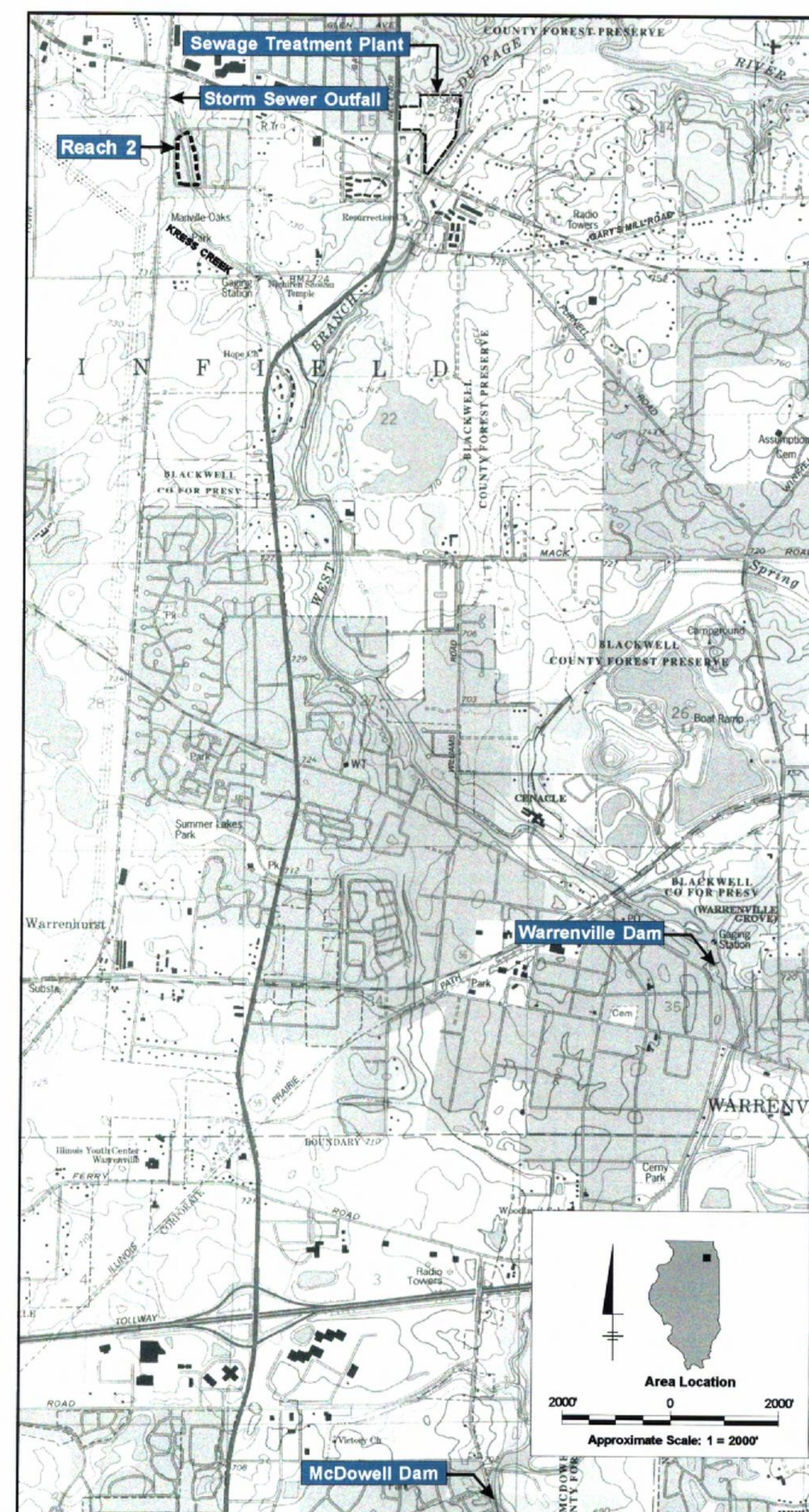
# **RECORD DRAWINGS** **REMEDIAL ACTION FOR REACH 2** **KRESS CREEK/WEST BRANCH** **DuPAGE RIVER SITE AND THE RIVER** **PORTION OF THE SEWAGE TREATMENT** **PLANT SITE**

**DuPAGE COUNTY, IL**

**RELEASED: MARCH 2008**

**REVISED: AUGUST 2008**

**TRONOX LLC**



REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., NAPERVILLE, ILL., 1993.

**LOCATION MAP**



ARCADIS U.S., INC.

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THE PROJECT AS CONSTRUCTED

DATE 8-1-08 BY MOG

## **INDEX OF DRAWINGS**

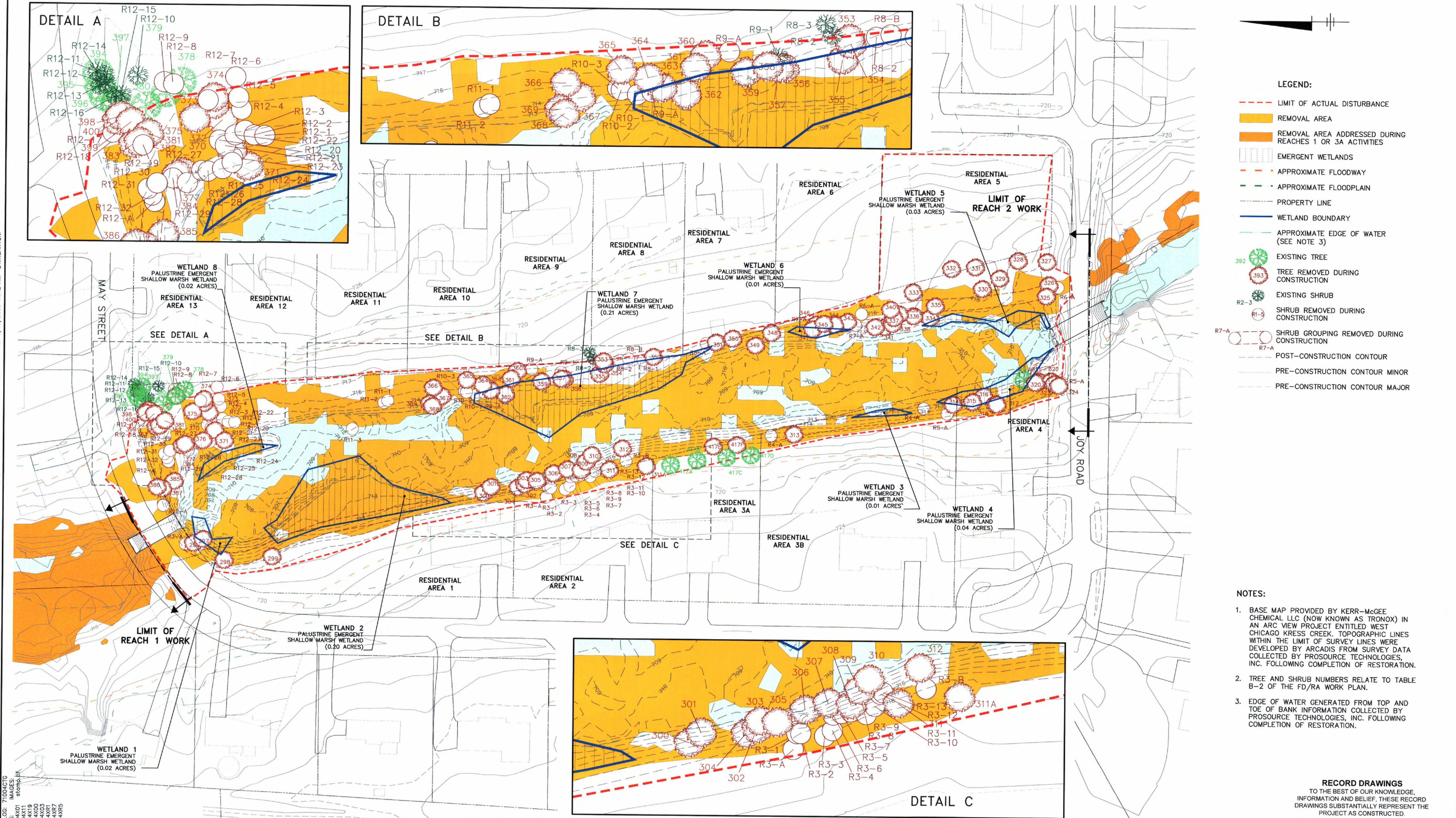
**(REVISED AUGUST 2008: REMOVED DRAWINGS FROM SET)**

- A-1 TITLE SHEET
- B-1 SITE PLAN WITH WETLAND BOUNDARIES AND EXISTING TREES AND SHRUBS
- B-7 FINAL GRADING PLAN
- B-8 TYPICAL SHORELINE RESTORATION DETAILS
- B-9 VEGETATION RESTORATION PLAN
- B-10 RESTORED CHANNEL PLAN AND PROFILE
- F-8 PAVEMENT REPLACEMENT PLAN - REACH 2

**A-1**



[SYR-B5-NE5] SYR-B5-NE5 KLS NES LAYER: ON=\*, OFF=REF\*, ADJ=\*, [40-LIM-DISTURBANCE-2 G:\CAD\ACT\10071024\0000\00002\WMS\REACH\_2\71024G21.DWG, 3/13/2008 11:12 AM, LAYOUT: B-1, PAGESETUP: C-1D-NY4P72 HP DesignJet T1100 D3, PENTABLE: PLT\FULL.CTB, PRINTED: 3/13/2008 11:12 AM, BY: KSA/TORI



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**MARK OWEN GRAVELDING**  
Professional Engineer's No.  
062059378  
State  
ILLINOIS  
Date Signed  
03/13/08  
Project Mgr.  
MOG  
Designed by  
ANE  
Drawn by  
NES



**ARCADIS**  
ARCADIS U.S., INC.

(RECORD DRAWING: MADE FROM DRAWING B-1 TRACER NO. 71004027/REACH2/71004G21.DWG, DATED 10/26/05)

# SITE PLAN WITH WETLAND BOUNDARIES AND EXISTING TREES AND SHRUBS

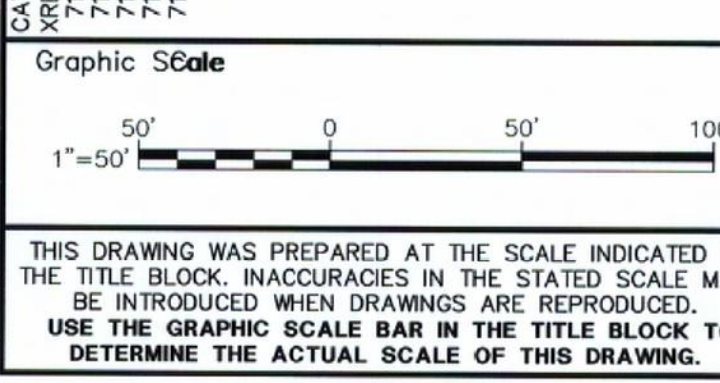
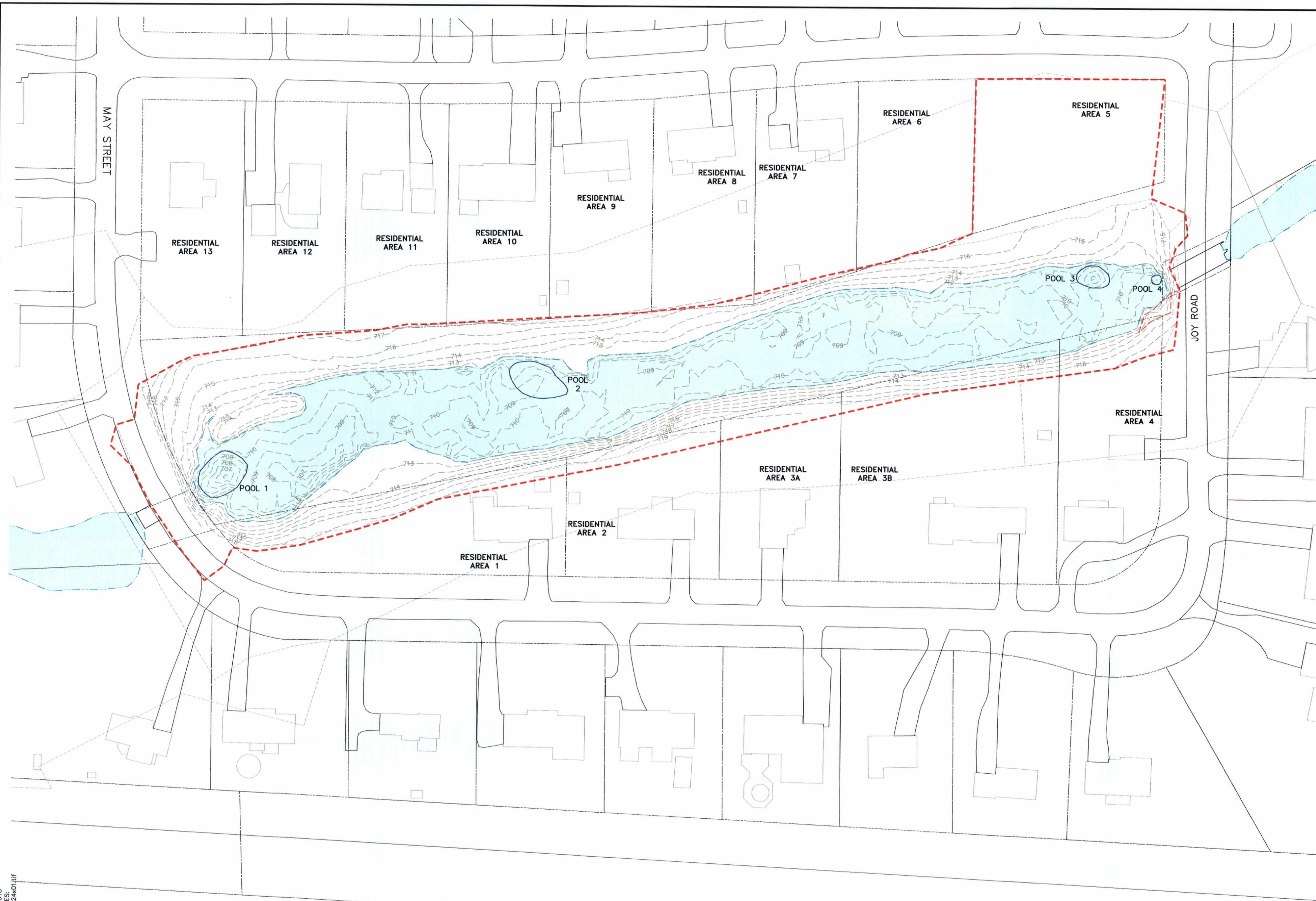
TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 2

DATE 3/13/08 BY MGG

Project No.  
B0071024.0000.00003  
Date  
MARCH 2008  
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Syracuse, NY 13214.9154  
315.446.9120

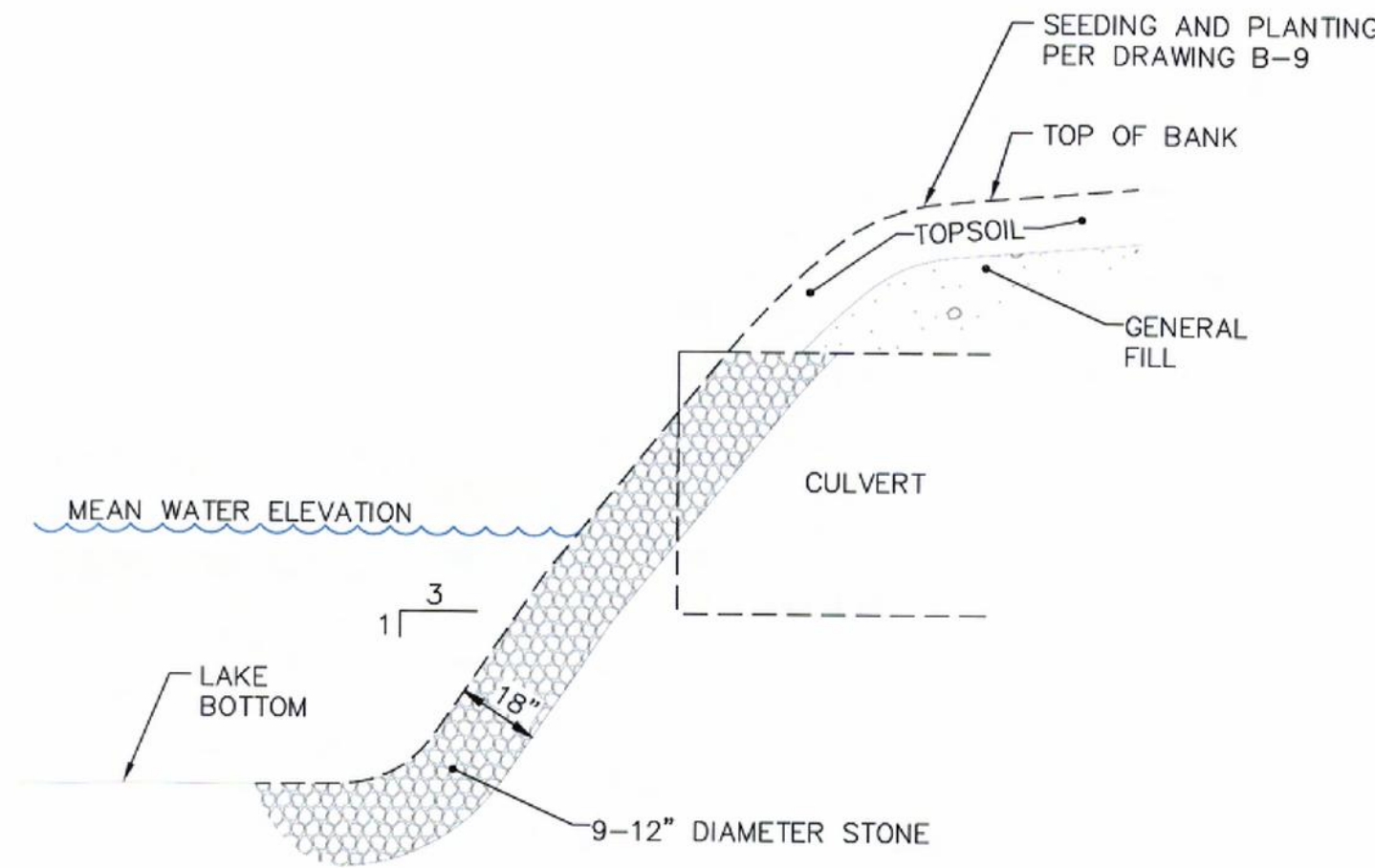
**B-1**







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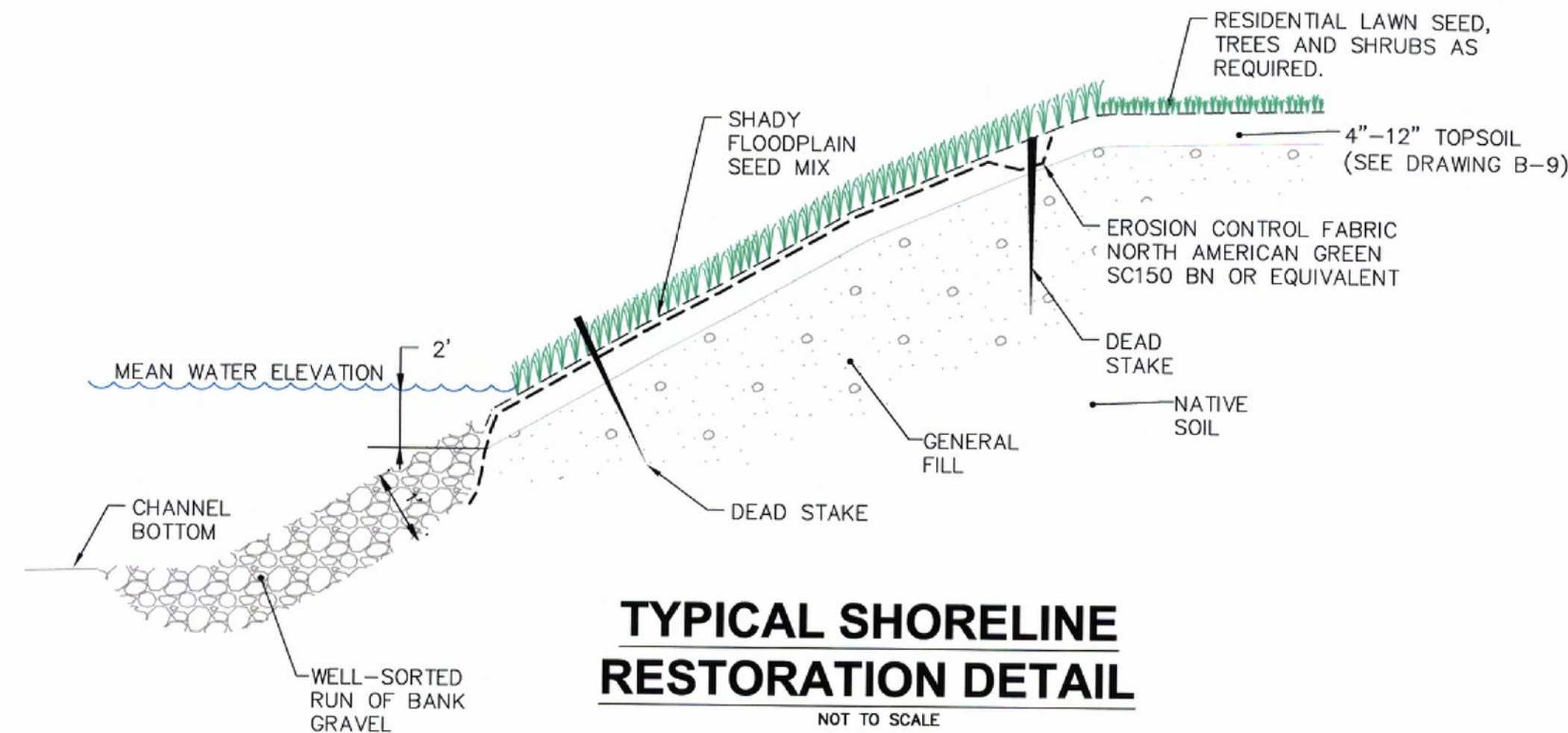


NOTES:

1. LENGTH OF STONE IS 10-FT ON EAST AND WEST SIDES OF CULVERT AT MAY STREET.
2. LENGTH OF STONE IS 20-FT ON EAST AND WEST SIDES OF CULVERT AT JOY ROAD.

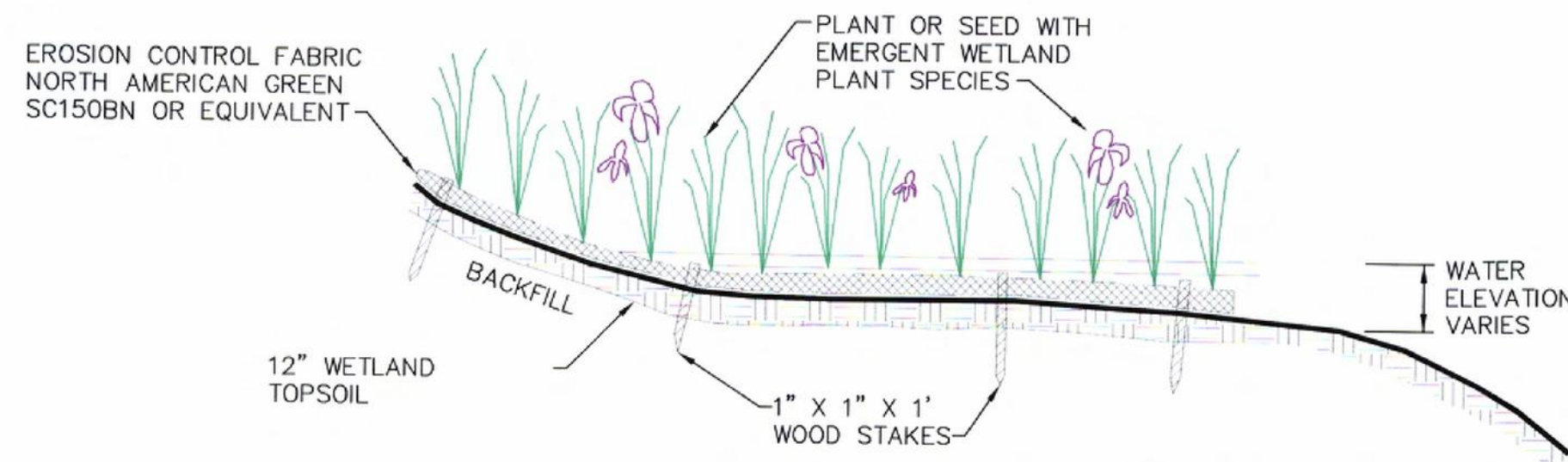
**TYPICAL SHORE ARMORING AT CULVERTS**

NOT TO SCALE



**TYPICAL SHORELINE RESTORATION DETAIL**

NOT TO SCALE



**TYPICAL EMERGENT WETLAND SHORELINE RESTORATION DETAIL**

NOT TO SCALE

**RECORD DRAWINGS**  
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DATE 3/13/08 BY MOW

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Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>	
Professional Engineer's No. 062059378	
State ILLINOIS	Date Signed 03/13/08
Project Mgr. MOG	Designed by ANE
	Drawn by NES



TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 2

**TYPICAL SHORELINE RESTORATION DETAILS**

Project No.  
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MARCH 2008

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**B-8**



[SYR-B5-NES] SYR-B5-NES KLS LAYER: ON=\*, OFF=REF\*, ADJ=\*, HO-LIM-DISTURBANCE-2 G:\ACT\B007102A\0000\0002\DWG\REACH-2\71024G28.DWG REACH-2\71024G28.DWG PAGES: 9-9 PAGESETUP: C:\ID-NY4P72 HP DesignJet T1100 D33 PENTABLE:PLT\FULL.CTB PRINTED: 3/13/2008 11:15 AM BY: KSARTORI



- LEGEND:**
- LIMIT OF ACTUAL DISTURBANCE
  - PROPERTY LINE
  - WETLANDS BOUNDARY
  - POOL
  - APPROXIMATE EDGE OF WATER (SEE NOTE 8)
  - PORTION OF BANK RESTORED PER TYPICAL SHORE ARMORING AT CULVERTS DETAIL ON FIGURE B-8.
  - AREA RESTORED WITH AQUATIC PLANTINGS PER TABLE 4 WITH GOOSE GRID PROTECTION
  - AREA RESTORED WITH SHADY FLOODPLAIN SEED MIX PER TABLE 3 AND MATTED WITH 100% BIODEGRADABLE EROSION CONTROL BLANKET
  - AREA RESTORED WITH LAWN SEED MIX PER TABLE 5
  - AREA RESTORED WITH SHADY UPLAND SEED MIX PER TABLE 3
  - AREA RESTORED WITH OPEN UPLAND SEED MIX PER TABLE 2
  - AREA RESTORED WITH 4" OF TOPSOIL
  - AREA RESTORED WITH 12" OF TOPSOIL
  - CR SPECIES OF PLANTED SHRUB AND OR SMALL TREE (SEE NOTES 4 AND 6)
  - bn SPECIES OF PLANTED TREE (SEE NOTE 5)

TABLE 1

Shady Floodplain Seed Mix		
Species	Common Name	Lbs./Acre
<i>Actinomeris alternifolia</i>	Wingstem	0.62
<i>Aquilegia canadensis</i>	Wild Columbine	0.62
<i>Aster lateriflorus</i>	Calico Aster	0.62
<i>Aster shortii</i>	Short's Aster	0.15
<i>Boehmeria cylindrica</i>	False Nettle	0.125
<i>Bromus latiglumis</i>	Vibrant Shade Grass	0.25
<i>Campanula americana</i>	Tall Bellflower	0.06
<i>Carex blanda</i>	Creek Sedge	0.062
<i>Cinna arundinacea</i>	Stout Woodreed	0.5
<i>Diarrhena americana</i>	Diarrhena	0.031
<i>Elymus riparius</i>	River Bank Wild Rye	1
<i>Elymus villosus</i>	Slender Wild Rye	0.768
<i>Elymus virginicus</i>	Virginia Wild Rye	2
<i>Eupatorium rugosum</i>	White Snakeroot	0.125
<i>Festuca obtuse</i>	Fescue	0.15
<i>Glyceria striata</i>	Fowl Manna Grass	0.5
<i>Impatiens capensis</i>	Spotted Jewel-Weed	0.25
<i>Leersia arundinacea</i>	Rice Cutgrass	0.25
<i>Penstemon digitalis</i>	Foxglove Beard Tongue	0.15
<i>Phlox divaricata</i>	Wood Phlox	0.15
<i>Polygonatum canaliculatum</i>	Solomon's Seal	0.15
<i>Pycnanthemum virginianum</i>	Mountain Mint	0.15
<i>Rudbeckia laciniata</i>	Tall Coneflower	0.44
<i>Veronicastrum virginicum</i>	Culver's Root	0.31
<i>Zizia aurea</i>	Golden Alexanders	0.062
Total		9.493
Cover Crop:	Avena sativa	21
	Annual Rye	3

TABLE 2

Open Upland Seed Mix		
Species	Common Name	Lbs./Acre
<i>Andropogon gerardii</i>	Big Bluestem	2.7
<i>Andropogon scoparius</i>	Little Bluestem	2.7
<i>Allium cernuum</i>	Nodding Wild Onion	0.15
<i>Amorpha canescens</i>	Leadplant	0.05
<i>Asclepias verticillata</i>	Whorled Milkweed	0.05
<i>Aster laevis</i>	Smooth Blue Aster	0.25
<i>Aster nova-angliae</i>	New England Aster	0.15
<i>Bouteloua curtipendula</i>	Side Oats Gramma	0.15
<i>Coreopsis palmata</i>	Prairie Coreopsis	0.05
<i>Echinacea purpurea</i>	Purple Coneflower	0.1
<i>Eryngium yuccifolium</i>	Rattlesnake Master	0.25
<i>Liatris aspera</i>	Blazing Star	0.25
<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.15
<i>Petalostemum purpureum</i>	Purple Prairie Clover	0.5
<i>Ratibida coccinea</i>	Mexican Hat	0.5
<i>Ratibida pinnata</i>	Yellow Cone Flower	0.5
<i>Rudbeckia hirta</i>	Black Eyed Susan	0.5
<i>Silphium laciniatum</i>	Compass Plant	0.1
<i>Silphium terebinthinaceum</i>	Prairie Dock	0.3
<i>Sorghastrum nutans</i>	Indian Grass	2.6
<i>Sporobolus heterolepis</i>	Northern Dropseed	2.6
<i>Tradescantia ohioensis</i>	Ohio Spiderwort	0.15
<i>Verbena stricta</i>	Hoary Vervain	0.25
<i>Zizia aptera</i>	Meadow Parsnip	0.25
Total		15.25
Cover Crop:	Avena sativa	21
	Annual Rye	3

TABLE 3

Shady Upland Seed Mix		
Species	Common Name	Lbs./Acre
<i>Agastache scrophulariaefolia</i>	Purple Giant Hyssop	0.02
<i>Anemone virginiana</i>	Tall Anemone	0.04
<i>Aquilegia canadensis</i>	Columbine	0.02
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	0.06
<i>Aster lateriflorus</i>	Calico Aster	0.04
<i>Aster sagittifolius</i>	Arrow-Leafed Aster	0.06
<i>Aster shortii</i>	Short's Aster	0.06
<i>Baptisia leucantha</i>	White Indigo	0.15
<i>Bromus latiglumis</i>	Ear-leafed Brome	0.25
<i>Bromus pubescens</i>	Woodland Brome	0.25
<i>Campanula americana</i>	Tall Bellflower	0.02
<i>Carex blanda</i>	Common Wood Sedge	0.15
<i>Clematis virginiana</i>	Virgin's Bower	0.04
<i>Diarrhena americana</i>	Beak Grass	0.15
<i>Echinacea purpurea</i>	Purple Coneflower	0.50
<i>Elymus canadensis</i>	Canada Wild Rye	2.00
<i>Elymus virginicus</i>	Virginia Wild Rye	2.00
<i>Eupatorium purpureum</i>	Purple Joe Pye Weed	0.04
<i>Festuca obtusa</i>	Nodding Fescue	0.03
<i>Hypericum pyramidatum</i>	Great St. John's Wort	0.02
<i>Hystrix patula</i>	Bottlebrush Grass	0.15
<i>Juncus dudleyi</i>	Dudley's Rush	0.15
<i>Lobelia inflata</i>	Indian Tobacco	0.02
<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.02
<i>Polygonatum canaliculatum</i>	Smooth Solomon's Seal	0.02
<i>Pycnanthemum pilosum</i>	Hairy Mt. Mint	0.20
<i>Ratibida pinnata</i>	Yellow Coneflower	0.15
<i>Rudbeckia hirta</i>	Black-eyed Susan	0.25
<i>Silphium integrifolium</i>	Rosinweed	0.05
<i>Smilacina racemosa</i>	Feathery False Solomon's Seal	0.20
<i>Tradescantia ohioensis</i>	Ohio Spiderwort	0.02
<i>Triosteum perfoliatum</i>	Late Horse Gentian	0.04
<i>Verbena urticifolia</i>	White Vervain	0.06
<i>Veronicastrum virginicum</i>	Culver's Physic	0.04
<i>Zizia aurea</i>	Golden Alexander	0.06
Total		7.33
Cover Crop:	Avena sativa	21
	Annual Rye	3

TABLE 4

Wetland 2 and 7 Shallow Marsh Wetland Plant Plugs		
Species	Common Name	Number Planted
		Wetland 2    Wetland 7
<i>Alisma plantago</i>	Great water plantain	82    82
<i>Alisma subcordatum</i>	Water plantain	76    76
<i>Carex bebbii</i>	Bebb's sedge	52    51
<i>Carex pellita</i>	Woolly sedge	51    52
<i>Eleocharis sp.</i>	Spike rush	52    51
<i>Iris virginicus</i>	Blue flag	51    52
<i>Juncus balticus</i>	Baltic rush	52    51
<i>Juncus effusus</i>	Soft rush	103    103
<i>Nuphar advena</i>	Spatterdock	21    20
<i>Nymphaea tuberosa</i>	White water lily	51    52
<i>Pontederia cordata</i>	Pickersweed	31    31
<i>Potamogeton sp.</i>	Pondweed	52    51
<i>Ranunculus flabellaris</i>	Yellow water buttercup	144    145
<i>Sagittaria latifolia</i>	Arrowhead	51    52
<i>Scirpus acutus</i>	Hardstem bulrush	51    52
<i>Scirpus americanus</i>	Three-square bulrush	52    51
<i>Scirpus atrovirens</i>	Dark green bulrush	103    103
<i>Scirpus cyperinus</i>	Marsh bulrush	51    52
<i>Scirpus fluviatilis</i>	River bulrush	52    51
<i>Scirpus lineatus</i>	Bulrush	31    31
<i>Scirpus validus</i>	Soft-stem bulrush	51    52
<i>Sparganium eurycarpum</i>	Burreed	82    82
<i>Potamogeton pectinatus</i>	Sago pondweed	53    52
Total		1395    1395

TABLE 5

Lawn Seed Mix	
Common Name	Percent
Kentucky Bluegrass	59.41
Monterey 2 Perennial Ryegrass	14.78
Evening Shade Perennial Ryegrass	14.75
Creeping Red Fescue	9.95
Inert Matter	1.04
Total	100

NOTES:

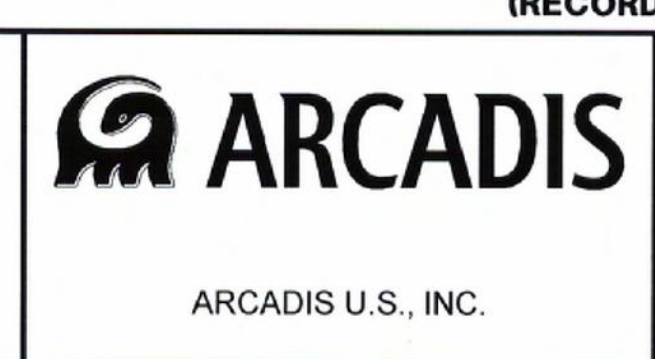
1. FINAL GRADES ARE SHOWN ON DRAWING B-7.
2. SHORELINE RESTORATION DETAILS ARE SHOWN ON DRAWING B-8.
3. RESTORED NON-DEVELOPED RESIDENTIAL AREAS PLANTED AT A DENSITY OF 225 WOODY PLANTS PER ACRE.
4. ALL SHRUBS ARE 1-GALLON CONTAINER STOCK.
5. TREES ARE 1.5" CALIPER ROOT-BAGGED STOCK.
6. SMALL TREES ARE 1-GALLON CONTAINER STOCK.
7. BASE MAP PROVIDED BY KERR-McGEE CHEMICAL LLC (NOW KNOWN AS TRONOX) IN AN ARC VIEW PROJECT ENTITLED WEST CHICAGO KRESS CREEK. TOPOGRAPHIC LINES WITHIN THE LIMIT OF SURVEY LINES WERE DEVELOPED BY ARCADIS FROM SURVEY DATA COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.
8. EDGE OF WATER GENERATED FROM TOP AND TOE OF BANK INFORMATION COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.

**RECORD DRAWINGS**  
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.



No.	Date	Revisions
1	03/13/08	LEGEND, TABLE, AND PLANTING REVISIONS
2	12/20/08	RECORD DRAWINGS

Professional Engineer's Name  
**MARK OWEN GRAVELDING**  
Professional Engineer's No.  
062059378  
State  
ILLINOIS  
Date Signed  
03/13/08  
Project Mgr.  
MOG  
Designed by  
ANE  
Drawn by  
NES



(RECORD DRAWING: MADE FROM DRAWING B-9 TRACER NO. 71004027/REACH2/71004G28.DWG, DATED 10/26/05)

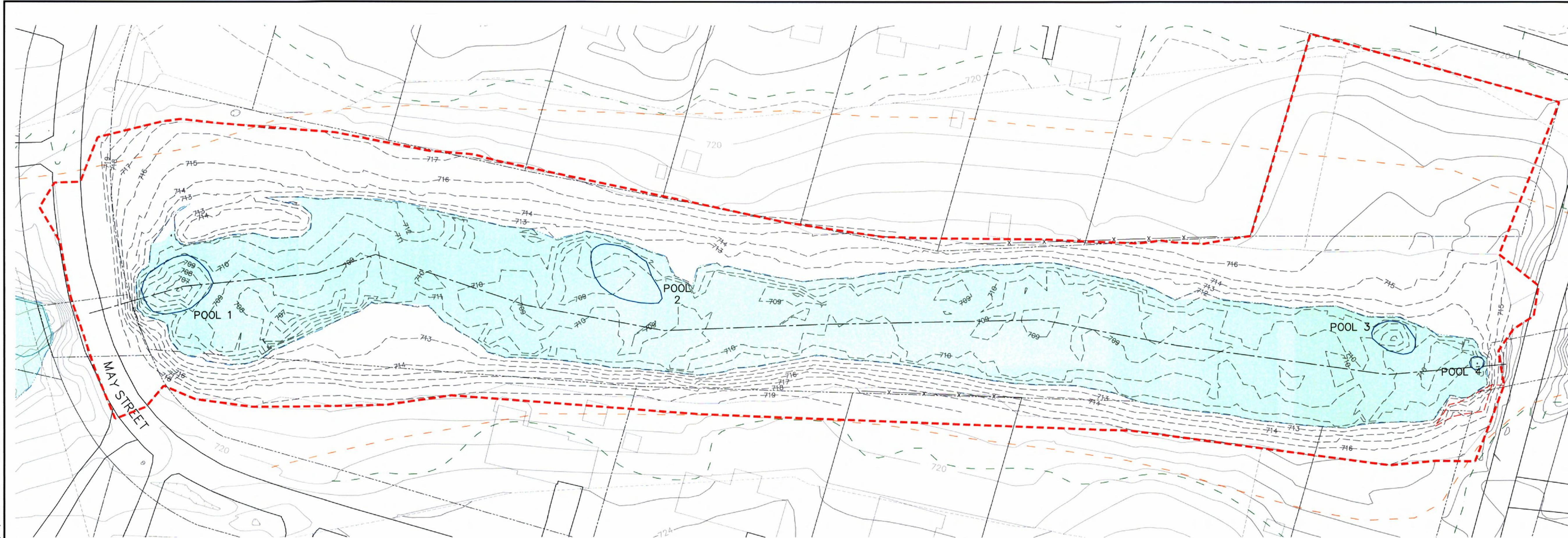
TRONOX LLC • KRESS CREEK/WEST BRANCH DUPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 2

**VEGETATION RESTORATION PLAN**

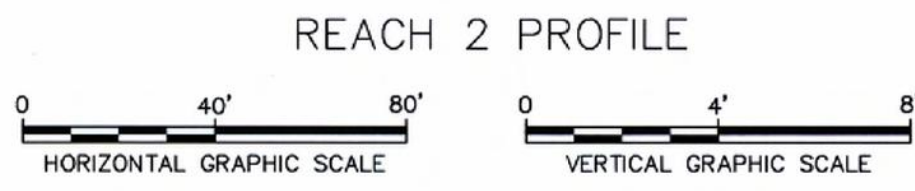
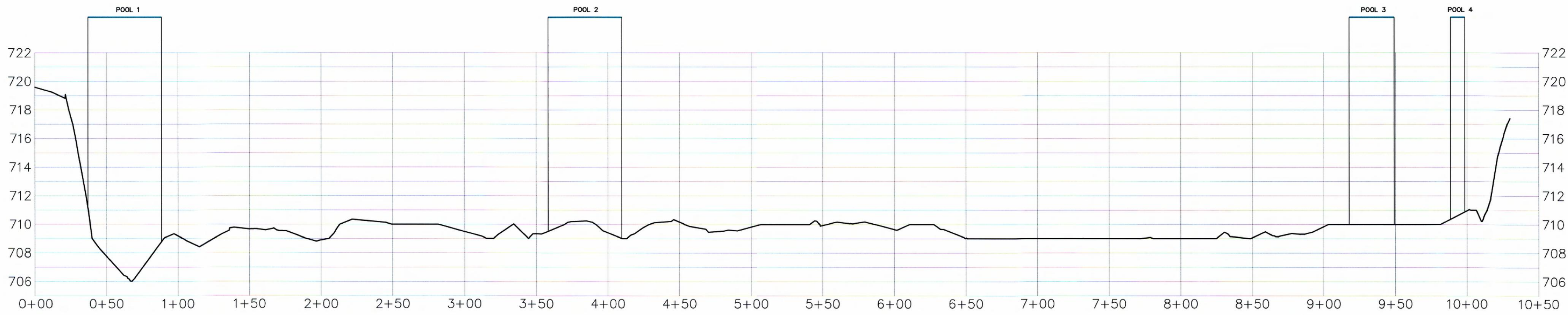
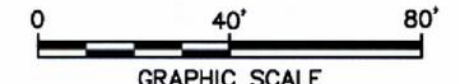
Project No.  
B0071024.0000.00003  
Date  
MARCH 2008  
ARCADIS  
6723 Towpath Road  
PO BOX 66  
Syracuse, NY 13214.9154  
315.446.9120

**B-9**





- LEGEND:**
- APPROXIMATE FLOODWAY
  - APPROXIMATE FLOODPLAIN
  - PROPERTY LINE
  - WETLAND BOUNDARY
  - LIMIT OF ACTUAL DISTURBANCE
  - LIMIT OF SURVEY
  - POST-CONSTRUCTION CONTOUR
  - PER-CONSTRUCTION CONTOUR MINOR
  - PER-CONSTRUCTION CONTOUR MAJOR
  - APPROXIMATE PROFILE ALIGNMENT
  - APPROXIMATE EDGE OF WATER (SEE NOTE 2)
- NOTES:**
- BASE MAP PROVIDED BY KERR-McGEE CHEMICAL LLC (NOW KNOWN AS TRONOX) IN AN ARC VIEW PROJECT ENTITLED WEST CHICAGO KRESS CREEK. TOPOGRAPHIC LINES WITHIN THE LIMIT OF SURVEY LINES WERE DEVELOPED BY ARCADIS FROM SURVEY DATA COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.
  - EDGE OF WATER GENERATED FROM TOP AND TOE OF BANK INFORMATION COLLECTED BY PROSOURCE TECHNOLOGIES, INC. FOLLOWING COMPLETION OF RESTORATION.



**RECORD DRAWINGS**  
TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

(RECORD DRAWING: MADE FROM DRAWING B-10 TRACER NO. 71004027/REACH1/EPA/71024V03.DWG, DATED 8/3/05)

DATE 3/13/08 BY M06

Graphic Scale  
AS NOTED

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED.  
USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions	Init

Professional Engineer's Name  
**MARK OWEN GRAVELING**  
Professional Engineer's No.  
062059378  
State  
ILLINOIS  
Date Signed  
03/13/08  
Project Mgr.  
MOG  
Designed by  
ANE  
Drawn by  
NES

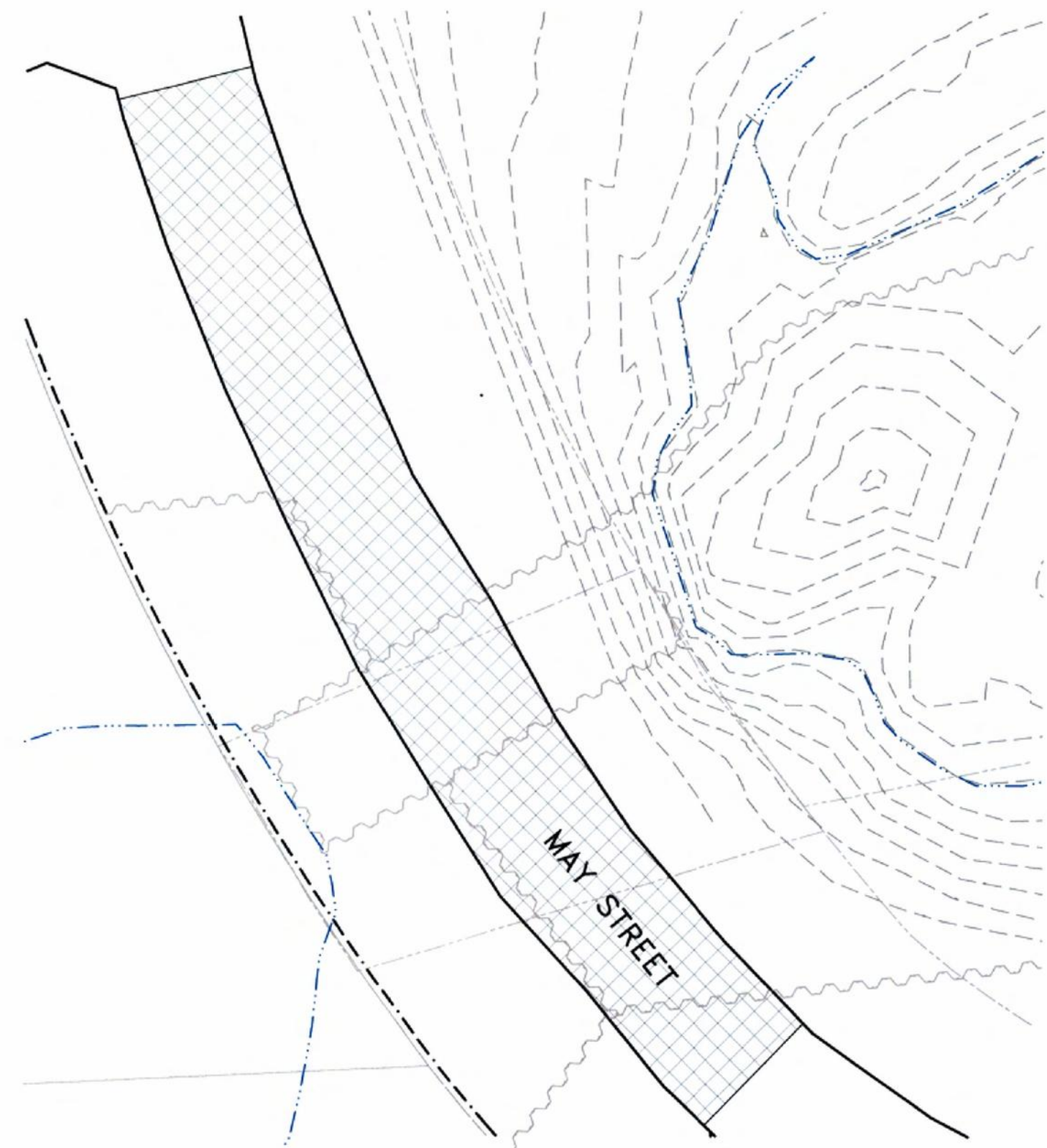


TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE  
FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 2  
**RESTORED CHANNEL PLAN AND PROFILE**

Project No.  
B0071024.0000.00003  
Date  
MARCH 2008  
ARCADIS  
6723 Towpath Road  
PO BOX 66  
Syracuse, NY 13214.9154  
315.446.9120

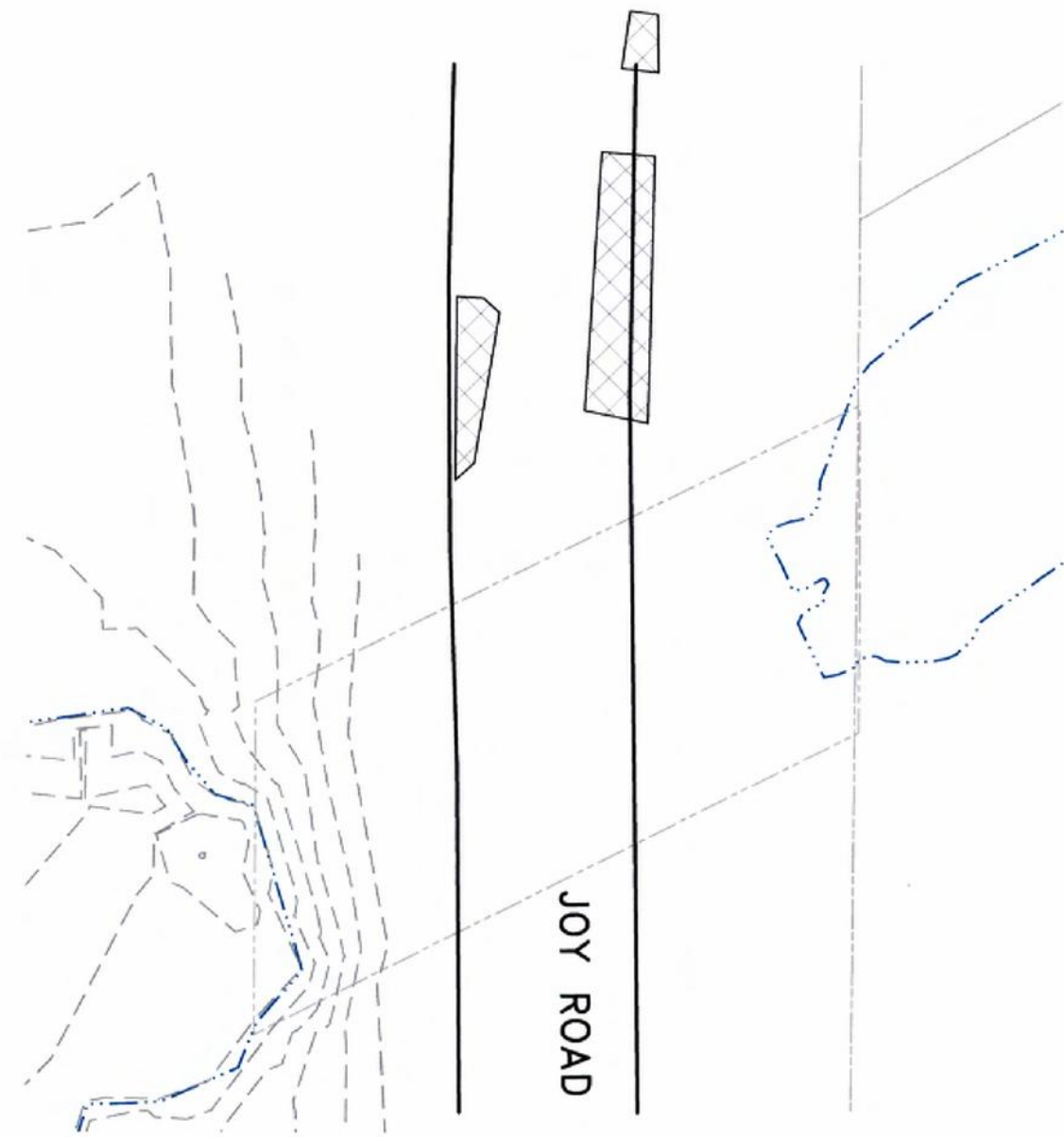
**B-10**





### MAY STREET PAVEMENT RESTORATION AREA

SCALE: SEE GRAPHIC SCALE



### JOY ROAD PAVEMENT RESTORATION AREA

SCALE: SEE GRAPHIC SCALE

#### LEGEND:

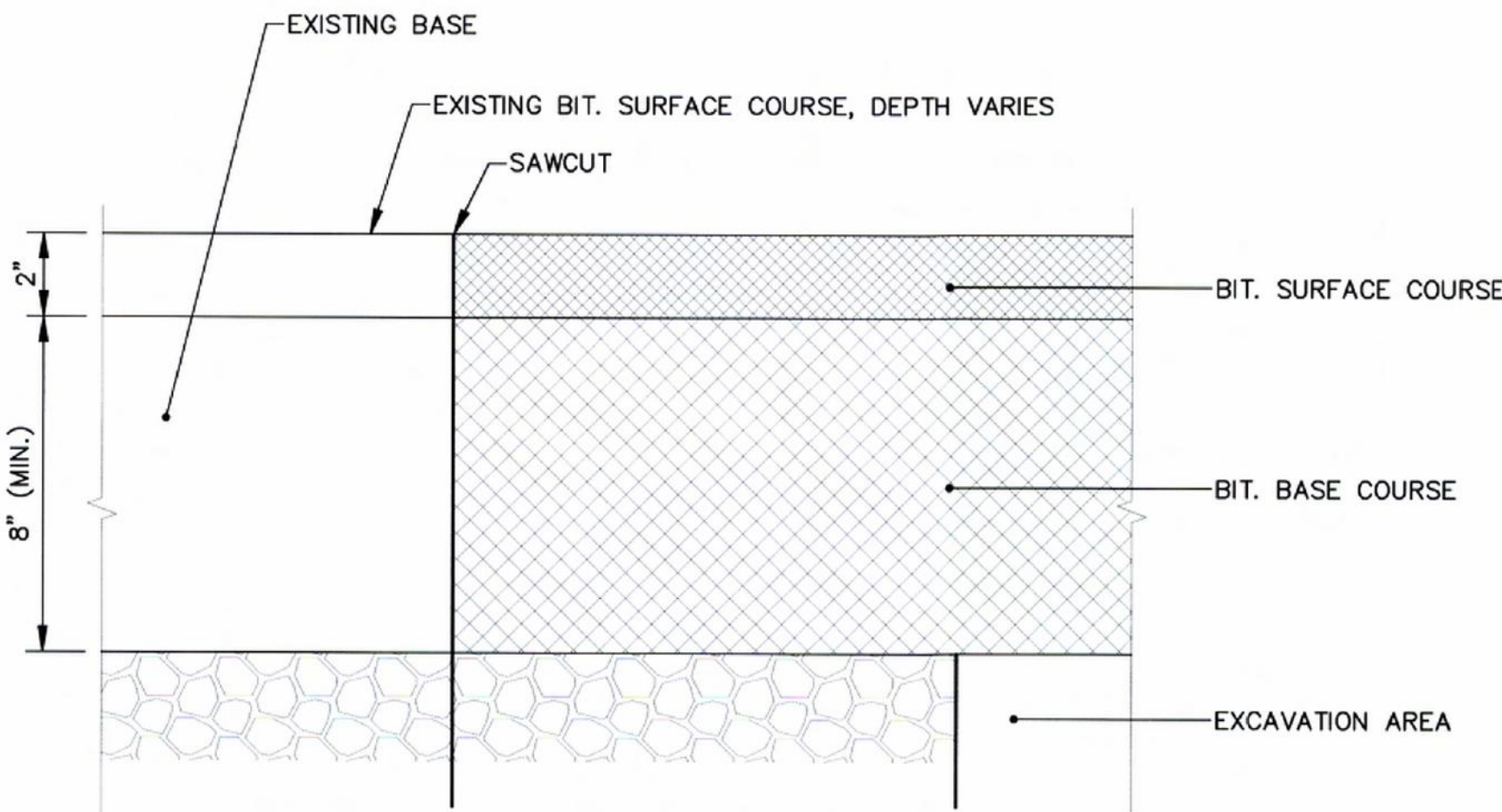
- PROPERTY LINE
- TEMPORARY SHEET PILING
- EDGE OF WATER
- EXCAVATION LIMITS
- POST-CONSTRUCTION CONTOUR
- APPROXIMATE PAVEMENT RESTORATION LIMITS

#### NOTES:

- PAVING PERFORMED BETWEEN APRIL 1ST AND NOVEMBER 1ST.
- PAVEMENT RESTORATION LIMITS ARE APPROXIMATE. ALL DAMAGED PAVEMENT RESTORED TO THE SATISFACTION OF WINFIELD TOWNSHIP.
- WINFIELD TOWNSHIP ASPHALT MIX DESIGN PROVIDED IN ATTACHMENT F-4 OF THE REACH 2 FD/RA WP.

#### NOTES:

- THE LOCATION AND LIMITS OF THE PAVEMENT PATCHING SHALL BE ESTABLISHED BY THE ENGINEER.
- ALL FULL DEPTH PATCHES, WHERE PAVEMENT HAS BEEN REMOVED SHALL BE PROTECTED BY A MINIMUM OF TWO (2) FLASHING BARRICADES.
- PRIOR TO PLACEMENT OF THE BITUMINOUS AGGREGATE MIXTURE ALL EXPOSED ASPHALT SURFACES SHALL BE PRIMED WITH BITUMINOUS MATERIALS (PRIME COAT)
- PAVEMENT WILL BE RESTORED WITH THE SAME THICKNESS OF ASPHALT AND SUBBASE MATERIAL THAT PRESENTLY EXISTS.
- INFORMATION OBTAINED FROM "WATER MAIN/SANITARY SEWER IMPROVEMENTS PROJECT, WEST CHICAGO, ILLINOIS" PREPARED BY ENGINEERING RESOURCE ASSOCIATES, INC. (9/23/99).



### PAVEMENT CROSS SECTION (TYP.)

SCALE: 1/4" = 1'-0"

**RECORD DRAWINGS**  
TO THE BEST OF OUR KNOWLEDGE,  
INFORMATION AND BELIEF, THESE RECORD  
DRAWINGS SUBSTANTIALLY REPRESENT THE  
PROJECT AS CONSTRUCTED.

(RECORD DRAWING: MADE FROM DRAWING F-8 TRACER NO. 71004027/REACH2/71004G31.DWG, DATED 10/26/05)

DATE 3/13/08 BY MOZ

Graphic Scale

1"=20'

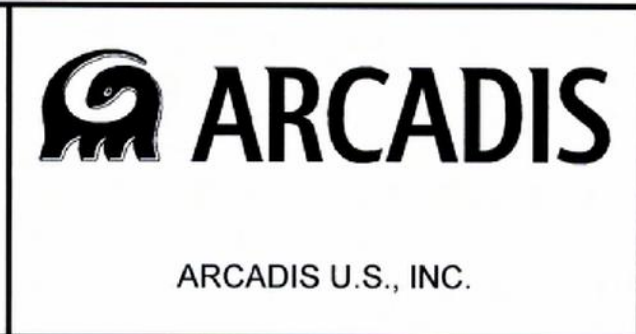
20' 0 20' 40'

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED.

USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions
1	03/13/08	RECORD DRAWINGS

Professional Engineer's Name <b>MARK OWEN GRAVELDING</b>		
Professional Engineer's No. 062059378		
State ILLINOIS	Date Signed 03/13/08	
Project Mgr. MOG	Designed by APC	Drawn by GMS



TRONOX LLC • KRESS CREEK/WEST BRANCH DuPAGE RIVER SITE AND THE RIVER PORTION OF THE SEWAGE TREATMENT PLANT SITE

FINAL DESIGN/REMEDIAL ACTION WORK PLAN - REACH 2

**PAVEMENT REPLACEMENT PLAN - REACH 2**

Project No. B0071024.0000.00003
Date MARCH 2008
ARCADIS 6723 Towpath Road PO BOX 66 Syracuse, NY 13214.9154 315.446.9120

**F-8**



**Appendix K**

Representative Project  
Photographs

**Photographic Record**

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Arcadis

**Date:**  
February 18, 2002

**Direction:**  
North

**Comments:**  
Preconstruction: Looking  
upstream in Reach 1 at  
Pool 7 and the railroad  
box culvert.



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
June 1, 2005

**Direction:**  
Looking Southwest

**Comments:**  
Preconstruction:  
Standing on east bank  
looking southwest at  
horse barn in southwest  
corner of Reach 1.





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
October 1, 2005

**Direction:**  
Looking North

**Comments:**  
Preconstruction:  
Standing at south end of  
Reach 2 on Joy Road  
looking north at Reach 2.



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
September 27, 2005

**Direction:**  
Looking East

**Comments:**  
Loading Targeted  
Material from Pond 7 for  
transport to the Reach 1  
staging area.





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**

Rick Elia Jr.  
Sevenson  
Environmental Services,  
Inc.

**Date:**

September 28, 2005

**Direction:**

Looking North

**Comments:**

Equipment being  
decontaminated  
following stabilization of  
Targeted Material with  
lime in Reach 1.



**Photographer:**

Rick Elia Jr.  
Sevenson  
Environmental Services,  
Inc.

**Date:**

October 4, 2005

**Direction:**

Looking South

**Comments:**

During construction:  
Standing at north end of  
Reach 1 on railroad  
tracks looking south at  
dewatered (bypass  
pumping) riverbed under  
construction.



## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**

Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**

October 7, 2005

**Direction:**

Looking Southwest

**Comments:**

Railcar Loading Facility  
at the REF.



**Photographer:**

Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**

October 20, 2005

**Direction:**

Looking South

**Comments:**

Placing river rock to  
create riffles in Reach 1  
per the restoration plan.





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
October 24, 2005

**Direction:**  
Looking North

**Comments:**  
Water filtration system  
consisting of Frac tanks  
and bag filters in Reach  
1.



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
October 25, 2005

**Direction:**  
Looking West

**Comments:**  
May Street closed at  
9:00 a.m. on 10/25/05.





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
October 27, 2005

**Direction:**  
Looking East

**Comments:**  
Verifying the bottom of  
Target Material removal  
in Reach 2-2, beneath  
May Street (Reach 2).



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
November 2, 2005

**Direction:**  
Looking South

**Comments:**  
Managing Overburden  
within Stabilization Pad  
in Reach 2.





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
November 2, 2005

**Direction:**  
Looking Southwest

**Comments:**  
Applying water mist to  
control dust emission on  
the west side of May  
Street bridge in Reach 2.



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
November 3, 2007

**Direction:**  
Looking Southwest

**Comments:**  
Delivering backfill to May  
Street Bridge. Note the  
air monitoring station in  
the foreground (Reach  
2).





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**

Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**

November 3, 2005

**Direction:**

Looking Southwest

**Comments:**

Compacting backfill  
using a vibratory roller  
adjacent to the May St.  
culvert to comply with  
the structural  
requirement of 95%  
compaction (Reach 2).



**Photographer:**

Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**

November 4, 2005

**Direction:**

Looking North

**Comments:**

Suction side of the  
bypass pumping system,  
pumping out of Pool 7  
for Reach 2.





## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
November 5, 2005

**Direction:**  
Looking South

**Comments:**  
Stabilizing Targeted  
Material with lime  
(Reach 2).



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.



**Date:**  
November 10, 2005

**Direction:**  
Looking North

**Comments:**  
Survey layout and  
control in Reach 1.  
Green flags delineate  
areas outside the  
designed excavation  
limits.





Photographic Record	
<b>Site Name:</b> Remedial Action For Reaches 1 and 2	
<b>Project Number:</b> B0071014.0000, 00003	
<b>Site Location:</b> West Chicago, Illinois	
<b>Photographer:</b> Rick Elia Jr. Sevenson Environmental Services, Inc.	
<b>Date:</b> November 18, 2005	
<b>Direction:</b> Looking South	
<b>Comments:</b> During construction: Standing at midpoint of Reach 2 looking at southern end of Reach 2 and twin culverts at Joy Road. Riverbed has been dewatered (bypass pumping) and excavation was	
<b>Photographer:</b> Rick Elia Jr. Sevenson Environmental Services, Inc.	
<b>Date:</b> November 21, 2005	
<b>Direction:</b> N/A	
<b>Comments:</b> Locating utility lines manually (Reach 2).	



## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
December 8, 2005

**Direction:**  
Looking South

**Comments:**  
Maintaining equipment  
to ensure operation in  
difficult weather  
conditions in Reach 2.



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
December 13, 2005

**Direction:**  
Looking North

**Comments:**  
Applying hydroseeding  
and erosion control mats  
in Reach 2. Work is  
being performed on  
slopes, floodplains, and  
wetlands as outlined in  
the restoration plan.



## Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
December 14, 2005

**Direction:**  
Looking South

**Comments:**  
Loading targeted  
material for transfer to  
the REF. An air monitor  
station is visible in the  
foreground (Reach 2).



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
December 17, 2005

**Direction:**  
Looking East

**Comments:**  
Guard rails re-installed  
on re-paved areas of  
May Street (Reach 2).





Photographic Record	
<div>Site Name: Remedial Action For Reaches 1 and 2</div> <div>Project Number: B0071014.0000, 00003</div>	
<div>Site Location: West Chicago, Illinois</div>	
<div>Photographer:</div> <div>Rick Elia Jr. Sevenson Environmental Services, Inc.</div>	
<div>Date:</div> <div>January 20, 2006</div>	
<div>Direction:</div> <div>Looking North</div>	
<div>Comments:</div> <div>Post Construction: Standing at south end of Reach 1 on May St. looking north at completed Reach 1 that was recently backfilled, graded, seeded, and erosion control blankets installed.</div>	
<div>Photographer:</div> <div>Rick Elia Jr. Sevenson Environmental Services, Inc.</div>	
<div>Date:</div> <div>January 20, 2006</div>	
<div>Direction:</div> <div>Looking South</div>	
<div>Comments:</div> <div>Post Construction: Standing at north end of Reach 2 on May St. looking south at completed Reach 2 that was recently backfilled, graded, seeded, and erosion control blankets installed.</div>	

### Photographic Record

**Site Name:** Remedial Action For Reaches 1 and 2

**Project Number:** B0071014.0000, 00003

**Site Location:** West Chicago, Illinois

**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
June 1, 2007

**Direction:**  
Looking North

**Comments:**  
Restored areas of Reach  
1 as seen from the May  
Street bridge.



**Photographer:**  
Rick Elia Jr.  
Sevenson Environmental  
Services, Inc.

**Date:**  
June 1, 2007

**Direction:**  
Looking South

**Comments:**  
Restored areas of Reach  
2 as seen from the May  
Street bridge.





Photographic Record	
<div> <div>Site Name: Remedial Action For Reaches 1 and 2</div> <div>Project Number: B0071014.0000, 00003</div> </div>	
<div> <div>Site Location:</div> <div>West Chicago, Illinois</div> </div>	
<div> <div>Photographer:</div> <div>Rick Elia Jr. Sevenson Environmental Services, Inc.</div> </div>	
<div> <div>Date:</div> <div>October 1, 2007</div> </div>	
<div> <div>Direction:</div> <div>Looking North</div> </div>	
<div> <div>Comments:</div> <div>Restoration Completed: Standing at south end of Reach 1 on May St. looking north at fully restored Reach 1.</div> </div>	
<div> <div>Photographer:</div> <div>Rick Elia Jr. Sevenson Environmental Services, Inc.</div> </div>	
<div> <div>Date:</div> <div>October 1, 2007</div> </div>	
<div> <div>Direction:</div> <div>Looking South</div> </div>	
<div> <div>Comments:</div> <div>Restoration Completed: Standing at north end of Reach 2 on May St. looking south at fully restored Reach 2.</div> </div>	